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ABSTRACT

This report is an annual collection of school district financial data. Specifically, this report presents analyses of school district revenues from the 1997-98 school year. The report is designed to address the following questions about the financing of public elementary and secondary education at the state and district levels: How much money per pupil is raised for elementary and secondary education from federal, state, and local sources? What is the level of variation in revenues per pupil across school districts nationally and in each state? How do district demographic and economic characteristics relate to revenues per pupil nationally and in each state? How strong are the relationships? What proportion of funds for elementary and secondary education comes from federal, state, and local sources, nationally and in each state? How do districts with different demographic and economic characteristics differ in the proportion of funds they receive for education from various sources? Analyses of school district revenues are presented for the nation and each state. The major findings of the report are presented using cost-adjusted revenues. Findings based on actual revenues are included in the body of the report, with both actual dollars and cost-adjusted dollars reported in the text. Appended are: Supplementary Tables; and Technical Notes on: Data Sources, Construction of Key Revenue Categories, Selection of Observations, and Data Modifications and Imputation Procedures. A glossary is also included. (Contains 91 tables and 30 figures.) (Author/WFA)

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School District Revenues for Elementary and Secondary Education: 1997-98. Statistical Analysis Report. NCES 2003-341.

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Statistical Analysis Report

July 2003

U.S. Department of Education
Institute of Education Sciences
NCES 2003-341

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Executive Summary

Introduction

The "School District Finance Survey" (Form F-33) is an annual collection of school district financial data that is part of the Common Core of Data (CCD). The F-33 collects data on revenues and expenditures for pre-kindergarten through grade 12 in public schools in approximately 15,500 local education agencies (LEAs) in the 50 states and the District of Columbia.

This report presents analyses of school district revenues for the 1997–98 school year. The F-33 data form the core of these analyses, but information is supplemented by data on selected school district demographic and fiscal characteristics from the 1990 *School District Data Book*, prepared by the U.S. Census Bureau. The demographic and fiscal data are used to examine the relationship between selected district characteristics and revenues from different sources.[1]

This report is designed to address a number of questions about the financing of public elementary and secondary education at the state and district levels:

- How much money per pupil is raised for elementary and secondary education from federal, state, and local sources?
- What is the level of variation in revenues per pupil across school districts nationally and in each state?
- How do district demographic and economic characteristics relate to revenues per pupil nationally and in each state? How strong are these relationships?
- What proportion of funds for elementary and secondary education comes from federal, state, and local sources nationally and in each state? How do districts with different demographic and economic characteristics differ in their proportion of funds for education from different sources?

Analyses of school district revenues are presented for the nation and the states. The national analyses focus on school revenues in districts in different geographical regions, school districts of different size, school districts with different fiscal capacity to support education (measured as median household income and median value of owner-occupied housing), and school districts with different proportions of minority and school-age children in poverty. The state analyses focus on interdistrict variation in revenues per pupil and the relationship between revenues per pupil and the school district fiscal and demographic characteristics cited in the national analyses.

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[1] While more current census data on district characteristics are now available, the 1990 census data were used in these analyses because they were the most current data available at the time the report was planned and written. The national analyses include districts in all states, even when the percentage of districts with demographic and fiscal data was less than 50 percent of the total districts in the state. The state analyses, however, only included the 40 states in which at least 50 percent of the districts had demographic and fiscal data.

The analyses of revenues presented in this report are based on both actual dollars and cost-adjusted dollars. Cost adjustments are designed to take into account differences in the cost of education across school districts in a state. The cost adjustment used in these analyses is the Geographic Cost of Education Index (GCEI) (Fowler and Monk 2001; Chambers 1998). The GCEI uses data from three separate categories of school inputs: certified school personnel, noncertified school personnel, and nonpersonnel school items. The index reflects how much more or less it costs in different geographic locations to recruit and employ comparable school personnel, as well as the varying cost of nonpersonnel items such as purchased services, supplies and materials, furnishings and equipment, travel, utilities, and facilities.

In the remainder of this summary, the major findings of the report are presented using cost-adjusted revenues. Findings based on actual revenues are included in the body of the report, with both actual dollars and cost-adjusted dollars reported in the text.

National Findings

The national findings focus on three areas: geographic differences in revenues, revenues in school districts of different size, and the relationship between revenues and selected school district fiscal and demographic characteristics.

Revenues in Different Geographic Regions

Cost-adjusted school district revenues for elementary and secondary education totaled $319.7 billion in 1997–98, or about $7,028 per pupil. State governments provided nearly half the total (49 percent)—about $155 billion, or about $3,413 per pupil. Local governments provided the second-largest share (45 percent)—about $144 billion, or $3,167 per pupil. The federal government provided the remaining 6 percent of revenues—more than $20 billion, or $447 per pupil.

School districts in the Northeast started out with the highest cost-adjusted local revenues per pupil—$4,699 per pupil in 1997–98. Even though state revenues per pupil were lowest in the Northeast—$3,201 per pupil, state and local revenues per pupil of $7,899 were still higher than in all other regions. Federal revenues per pupil of $380 were also lowest in the Northeast. However, even with lower federal revenues, the Northeast still had the highest total revenues per pupil. Put differently, school districts in the Northeast had an advantage in local revenues per pupil that was not offset when other regions obtained greater revenues from state and federal sources.

At the other end of the spectrum, school districts in the West had the lowest local revenues per pupil—$2,114 per pupil in 1997–98. After the addition of state revenues of $3,515 per pupil, school districts in the West still had the lowest state and local revenues per pupil—$5,629. Federal revenues were an additional $436 per pupil in the West. However, even with the addition of state and federal revenues, total revenues of $6,066 per pupil in school districts in the West were still lower than in all other regions of the country.

Revenues in School Districts of Different Size

Small school districts (those with fewer than 1,000 students) consistently had the highest revenues per pupil for education in cost-adjusted dollars. These school districts had local revenues of $3,819 per pupil, which was $652 per pupil above the national average. With state revenues of $4,087 per pupil, state and local revenues per pupil were more than $1,300 higher than the national average—$7,906 in the smallest school districts compared to the national average of $6,580. Federal revenues per pupil, which averaged $499 in the smallest districts, were also about $52 above the national average of $447. As a result, total revenues per pupil in these districts were nearly $1,400 above the national average—$8,405, compared to $7,028. In other words, the revenue advantage that the smallest school districts had from local revenues more than doubled with the addition of state and federal revenues.

In contrast, the largest school districts (those with 10,000 or more students) consistently had the lowest revenues per pupil. These school districts had the lowest local revenues per pupil ($2,896) and the second-lowest state revenues per pupil ($3,328), compared with districts with fewer students.[2] State and local revenues per pupil of $6,224 were therefore lower in the largest districts than in smaller districts. Although federal revenues of $478 per pupil were only slightly lower than in the smallest districts, the largest school districts still had the lowest total revenues per pupil ($6,702 in 1997–98) of all size categories.

Relationship Between Revenues and School Districts' Fiscal Capacity

For the nation as a whole, school districts with higher median household income tended to raise more cost-adjusted revenues per pupil from local sources than lower income districts. School districts with median household income less than $20,000 had local revenues per pupil ($1,975) that were less than half of these revenues in districts with household income of $35,000 or more ($4,113). However, revenues per pupil from state sources were negatively related to household income and tended to partially offset the revenue advantage of high-income districts. As a result, while combined state and local revenues per pupil were positively related to household income, the relationship was much weaker than the relationship between household income and local revenues per pupil. Federal revenues per pupil had an even stronger negative relationship with district income ($881 in the lowest income districts and $210 in the highest income districts). Consequently, there was a small negative relationship between household income and total revenues per pupil. Put differently, higher state and federal revenues per pupil in school districts with lower household income tended to offset the local revenue advantage of high-income school districts.

Similar results were found when the median value of a school district's owner-occupied housing was used as the measure of fiscal capacity. A positive relationship between median value of owner-occupied housing and local revenues per pupil was counterbalanced by a stronger negative relationship between housing value and state revenues per pupil. As a result, there was only a small positive relationship between median value of owner-occupied housing and state and local revenues per pupil. A negative relationship between housing values and federal revenues per pupil changed the relationship between housing value and total revenues per pupil from slightly positive to slightly negative. Again, higher state and federal revenues per pupil in school districts with lower median housing values offset the local revenue advantage of school districts with higher housing values.

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[2] Four district size categories were examined: fewer than 1,000 students, 1,000 to 4,999 students, 5,000 to 9,999 students, and 10,000 or more students.

Relationship Between Revenues and Minority and Poor Children

School districts with higher concentrations of minority and poor children tended to raise less money from local revenues than districts with lower concentrations of poor and minority children. However, higher state revenues per pupil in these districts partially offset the local revenue advantage in districts with smaller proportions of poor and minority children. With federal revenues per pupil having a strong positive correlation with a district's proportion of poor and minority children, total revenues per pupil had only a small negative relationship with percent minority enrollment and no significant relationship with proportion of children in poverty. In short, the local revenue disadvantage of districts with high proportions of poor and minority children was offset by higher revenues per pupil from state and federal sources.

State Findings

The state findings focus on two areas. The first is interdistrict variation in revenues per pupil. This area was selected because the amount of interdistrict variation in revenues per pupil is often used as a measure of the equity of state school finance systems. States with little variation in revenue per pupil are generally considered to have more equitable systems than those with large interdistrict variation (Berne and Stiefel 1984).

The second area is the relationship between revenues per pupil and selected school district fiscal and demographic characteristics. Fiscal characteristics such as median household income and median housing values were selected because school district wealth, as measured by these variables, has been found in many states to be associated with differences in funding for education (Parrish, Hikido, and Fowler 1998). States in which finance arrangements produce either no relationship or only a weak positive relationship between district wealth and school funds are generally considered to be more equitable than those that have a strong positive relationship between district wealth and revenues (Berne and Stiefel 1984). Demographic characteristics such as proportion of children in poverty and proportion of minority enrollment were also selected because of equity considerations. States in which revenues are positively associated with students' special educational needs, (e.g., needs based on poverty) are generally regarded as more equitable than those that do not provide additional funding to address the educational needs of poor students (Goertz and Odden 1999).

Interdistrict Variation in Revenues Per Pupil

This study created a synthesized measure of variation that combined state rankings on three standardized variation measures to assess the amount of interdistrict variation in revenues per pupil across school districts.[3] Based on their rankings on this synthesized measure, states were then organized into 4 groups with approximately 12 states in each group. States with the lowest rankings had the smallest overall variation in revenues per pupil; states with the highest rankings had the largest variation. This analysis includes 49 states; the District of Columbia and Hawaii are not included because each has only one school district.

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[3] The three measures used to create the synthesized measure were the restricted range ratio, the coefficient of variation, and the Gini coefficient. The method used to create the synthesized measure is explained more fully in the introduction to the report.

The 12 states with the largest variation in unadjusted local revenues per pupil were Alaska, Arizona, California, Connecticut, Idaho, Illinois, Kansas, Massachusetts, Michigan, New Jersey, Texas, and Wyoming. Five of the 12 states (Alaska, Arizona, California, Idaho, and Wyoming) were in the West, 3 (Connecticut, Massachusetts, and New Jersey) were in the Northeast, and 3 (Illinois, Kansas, and Michigan) were in the Midwest. There was only one state in this group from the South (Texas).

When state revenues were added to local revenues, only 4 of the original 12 states (Alaska, Illinois, Kansas, and Wyoming) were in the group with the largest overall variation in state and local revenues per pupil. The addition of state revenues tempered the variation in local revenues per pupil. The states with the largest variation in state and local revenues per pupil were now distributed nearly evenly across three regions—Alaska, Montana, New Mexico, and Wyoming in the West; Illinois, Kansas, and North Dakota in the Midwest; and New Hampshire, New York, and Vermont in the Northeast.

With the addition of federal revenues, 5 of the 12 states with the largest variation in local revenues per pupil (Alaska, Arizona, Illinois, Kansas, and Texas) continued to show the largest variation in total revenues per pupil. The largest concentration of states was in the Midwest (Illinois, Kansas, Missouri, Nebraska, and North Dakota) and the West (Alaska, Arizona, Montana, and Wyoming), with only one state from the South (Texas) in this group.

Looking at cost-adjusted revenues per pupil, 6 of the 13 states with the smallest variation in cost-adjusted local revenues per pupil were in the South (Delaware, Florida, North Carolina, South Carolina, Tennessee, and West Virginia), 5 were in the Midwest (Indiana, Iowa, Missouri, North Dakota, and South Dakota), 1 was in the Northeast (New Hampshire), and one was in the West (Nevada).

When state revenues were added to local revenues, the balance shifted more heavily to the South. Eight of the 12 states with the smallest overall variation in state and local revenues per pupil were in this region (Arkansas, Delaware, Florida, Kentucky, North Carolina, South Carolina, Tennessee, and West Virginia); only 4 states were outside the South—3 of them in the Midwest (Indiana, Iowa, and Wisconsin).

With the addition of federal revenues, 9 of the 12 states with the smallest overall variation in cost-adjusted total revenues per pupil were in the South. Alabama and Louisiana were added to the group, and South Carolina was eliminated. Put differently, disparities in local revenues per pupil, which were less pronounced in the South, were lessened even further with the addition of state and federal revenues.

Relationship Between Revenues and School Districts' Fiscal Capacity

Analyses of the relationship between school districts' fiscal capacity and revenues per pupil were conducted in the 40 states in which at least 50 percent of the school districts had demographic and fiscal data. In 34 of these 40 states, there was a positive relationship between median household income and cost-adjusted local revenues per pupil. There was, however, a negative relationship between district median household income and state revenues per pupil in 39 states. As a result, there was a positive relationship between median household income and state and local revenues per pupil in just 10 states. Higher state revenues per pupil overcame the local revenue advantage of high-income districts. Federal revenues reinforced this trend. After the addition of federal revenues per pupil, which had a negative relationship to district income in 39 states, only 7 states still showed a positive relationship between household income and total revenues per pupil. In 21 states, lower income districts actually tended to have higher total revenues per pupil.

District fiscal capacity, measured as median value of owner-occupied housing, showed similar relationships to district revenues. Median value of owner-occupied housing was positively related to local revenues per pupil in 35 of the 40 states with available data, and negatively related to state and federal revenues per pupil in 40 and 34 states, respectively. When state and federal revenues were added to local revenues, the local revenue advantage of districts with higher median housing values was overcome by larger amounts of state aid in most states. Only 10 states continued to show a positive relationship between median housing value and cost-adjusted state and local revenues per pupil, and only 7 states showed a positive relationship between median housing and total revenues per pupil.

Relationship Between Revenues and District Poverty and Proportion of Minority Enrollment

School district poverty was negatively related to cost-adjusted local revenues per pupil in 33 of the 40 states with available data. State and federal revenues per pupil were positively related to school district poverty in 36 and 38 states, respectively. With the addition of state revenues to local revenues, there was still a negative relationship between district poverty and state and local revenues per pupil in nine states. With the addition of state and federal funds, there was a negative relationship between district poverty and revenues per pupil in only three states. Higher state and federal revenues in high-poverty districts offset their local revenue disadvantage in a substantial number of states.

Similar results were found for minority enrollment. In 17 of the 40 states with available data, there was a negative relationship between proportion of minority enrollment and cost-adjusted local revenues per pupil. However, state revenues per pupil were positively related to minority enrollment in 19 states. With the addition of state revenues, the proportion of minority enrollment was negatively related to state and local revenues per pupil in only 12 states. Federal revenues per pupil were also positively related to the proportion of minority enrollment in 36 states. As a result, with the addition of federal revenues, there was a negative relationship between proportion of minority enrollment and total revenues per pupil in only 6 states, and a positive relationship in 18 states. Higher state and federal revenues in school districts with large minority enrollments worked to overcome the local revenue advantage of school districts with relatively small minority populations.

Organization of the Report

In addition to the introduction (chapter 1), the report has six chapters. Chapter 2 presents an analysis of local revenues, including property taxes and student fees. Chapter 3 examines state revenues, including general formula assistance and instructional program revenues. Chapter 4 examines state and local revenues combined. Chapter 5 examines Title I and other federal revenues. Chapter 6 presents an analysis of total district revenues, including local, state, and federal funds. Chapter 7 presents a synthesis and summary of the report's major findings. Appendices to the report contain technical notes and detailed correlation tables on district revenues.

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Chapter 1: Introduction

Background and Introduction

The financing of elementary and secondary education is always an important issue for policymakers at the national, state, and local levels. Even during times of economic growth, education must compete with other public functions for the taxpayer's dollar; during periods of economic slowdown, that competition is even more intense. In addition, issues of equity and productivity invariably enter into the public debate, as policymakers seek to ensure equitable access to education for all children and the most effective use of public funds.

Looking at education funding nationally is necessary to understand the overall investment of the United States in education and how much funding comes from national, state, and local governments. However, a complete picture of education funding can only be developed by looking at funding at the state and local levels, since state and local governments provide well over 90 percent of the funds for elementary and secondary education. Since funding within states is generally not uniform across school districts, it is important not only to look at average funding levels in the states, but to also examine variation in funding across school districts and district characteristics that may be associated with differences in funding levels.

This report is designed to address a number of questions about the financing of public elementary and secondary education at the state and district levels. These questions are:

- ☐ How much money per pupil is raised for elementary and secondary education from federal, state, and local sources?
- ☐ What is the level of variation in revenues per pupil across school districts nationally and in each state?
- ☐ How do district demographic and economic characteristics relate to revenues per pupil nationally and in each state? How strong are these relationships?
- ☐ What proportion of funds for elementary and secondary education comes from federal, state, and local sources nationally and in each state? How do districts with different demographic and economic characteristics differ in their proportion of funds for education from different sources?

Data Sources

The primary source of data for this report on school district financing of elementary and secondary education was the 1997–98 "School District Financial Survey (Form F-33)." The F-33 is an annual district-level collection of revenue and expenditure data in grades pre-kindergarten through 12. It is part of the Common Core of Data (CCD) collection of surveys and administrative-records data relating to public elementary and secondary education. In 1997–98, the F-33 data file contained 15,512 districts across the United States enrolling 45,772,962 students (table 1-1). Data on revenues and expenditures collected through the F-33 were supplemented with data from the U.S. Census Bureau, 1990 Decennial Census School District Special Tabulation, which contain 1990 school district demographic and fiscal characteristics. These data are also called the Census Mapping data. Percentage of minority enrollment, percentage of school-age children in poverty, median household income, and median value of owner-occupied housing data were used from the Census Mapping data.

While more current Census data on district characteristics are now available, the 1990 Census data were used in these analyses because they were the most current data available at the time the report was planned and written. Although, overall, demographic characteristics may have remained relatively constant over time, readers should be aware that there may be individual districts whose demographic characteristics changed significantly between 1990 and 1997. It is difficult to say what the effect of updated census demographic data would have on the analysis in the report.

Methods of Analysis

The analysis focuses on revenues from federal, state, and local governments. Each of the analyses presented in the report contains two parts. One is a national analysis of school district revenues. The second is an analysis of school district revenues in the 50 states. Both the national analyses and the state analyses are presented using two types of revenue measures. One is a measure of ***actual*** education revenues. These figures represent the amount of money school districts actually raise for education and are the figures they report as revenues in their audited financial records and in financial reports to the state. The second component is an analysis of ***cost-adjusted revenues*** per pupil at the national level. "Cost-adjusted" revenues are designed to take into account differences in the cost of education across school districts. The cost adjustment used in these analyses is the Geographic Cost of Education Index (GCEI) (Fowler and Monk 2001; Chambers 1998). The GCEI uses data from three separate categories of school inputs: certified school personnel, non-certified school personnel, and non-personnel school items. The index reflects how much more or less it costs in different geographic locations to recruit and employ comparable school personnel, as well as the varying costs of non-personnel items such as purchased services, supplies and materials, furnishings and equipment, travel, utilities, and facilities. The index is established by weighting each component of expenditure by its share of current expenditure during the 1993–94 school year.

Although cost-adjusted revenues provide a more rigorous way to compare revenues across school districts and states, the report includes "actual" revenues—in addition to cost-adjusted revenues—for certain reasons. First, "actual" revenues are the figures that appear in both official reports and other communications to policymakers, education administrators and teachers, and the general public. Second, a number of adjustment procedures could have been used to take into account cost-of-education differences across communities (McMahon 1996). While only the GCEI was selected for use in this report, it was important to also present analyses that correspond with data that are recognized as the "real" data, in addition to cost-adjusted revenues.

National Analyses

The national analyses of school district revenues first present total education revenues per pupil for all school districts in the nation. They then present average revenues per pupil for school districts in differ-

Table 1-1. Total number of school districts, students, and revenues, by state: 1997–98

State	Number of school districts	Number of students	Revenues (in thousands)
United States	15,512	45,772,962	331,730,773
Alabama	127	739,321	4,140,537
Alaska	53	130,633	1,206,195
Arizona	230	794,331	4,675,296
Arkansas	326	456,355	2,567,380
California	1,077	5,727,224	39,183,018
Colorado	195	686,360	4,359,021
Connecticut	174	515,141	5,024,673
Delaware	19	111,428	934,530
District of Columbia	1	77,111	706,938
Florida	67	2,292,161	15,595,671
Georgia	196	1,375,980	9,207,163
Hawaii	1	189,887	1,279,125
Idaho	112	244,403	1,310,960
Illinois	1,046	1,972,406	14,688,777
Indiana	315	985,690	7,656,749
Iowa	392	501,054	3,589,705
Kansas	304	468,980	3,207,670
Kentucky	176	645,232	3,938,009
Louisiana	66	774,561	4,443,468
Maine	292	212,038	1,611,926
Maryland	24	830,744	6,521,269
Massachusetts	392	942,331	7,726,497
Michigan	719	1,680,559	14,712,250
Minnesota	416	841,723	6,672,384
Mississippi	152	504,792	2,400,660
Missouri	525	909,441	5,990,499
Montana	483	162,164	1,035,636
Nebraska	657	291,570	2,062,836
Nevada	17	296,621	1,906,860
New Hampshire	177	196,734	1,420,100
New Jersey	615	1,238,948	13,786,951
New Mexico	89	331,673	1,913,783
New York	690	2,834,992	27,900,803
North Carolina	117	1,230,010	7,516,979
North Dakota	260	116,813	731,384
Ohio	727	1,846,585	13,577,343
Oklahoma	586	623,681	3,559,980
Oregon	220	540,226	3,892,091
Pennsylvania	605	1,791,100	15,671,363
Rhode Island	36	152,356	1,255,280
South Carolina	98	648,084	4,109,130
South Dakota	176	133,698	793,101
Tennessee	138	876,693	4,757,639
Texas	1,063	3,888,061	24,485,263
Utah	40	480,811	2,295,870
Vermont	328	101,413	1,089,658
Virginia	155	1,110,815	7,723,744
Washington	305	991,235	6,928,738
West Virginia	55	300,737	2,178,936
Wisconsin	430	881,552	7,083,655
Wyoming	48	96,504	703,280

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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ent geographic regions, school districts of different size, school districts with different fiscal capacity to support education, and school districts with different proportions of minorities and school-age children in poverty. The two measures of fiscal capacity used in the analysis are median household income and median value of owner-occupied housing.

Revenues per pupil are calculated by dividing revenues in the 1997–98 school year by the fall 1997 student enrollment in each district. Average revenues per pupil for school districts in different regions and for school districts with different demographic and fiscal characteristics are calculated as ***weighted averages***; each district's weight is the number of students enrolled in fall 1997.

Analyses of "actual" or "unadjusted" revenues use a subset of districts on the F-33 file. This subset file contains 14,254 regular school districts or about 92 percent of the districts in the original file (table 1-2). Districts designated as "college-grade," "vocational or special education," "non-operating," and "education service agency" were not included in the analysis since these are not school districts that provide the regular elementary and secondary school programs. Districts with total revenues and total expenditures reported as "zero" or "missing" and special districts for vocational education, technical education, special education, and agricultural education were also removed from the original file.

Cost-of-education adjustments were not available for all school districts in the F-33 file. One hundred and seventy-seven districts without GCEI data were therefore removed from these analyses. The analyses of cost-adjusted revenues therefore contained 14,077 school districts or about 91 percent of the districts in the original F-33 file (table 1-3). The districts in this analysis file contained about 99 percent of the students enrolled in elementary and secondary education in fall 1997.[1]

State Analyses

The state analyses presented in the report generally follow the national model, but focus more on two issues. One is the amount of variation in revenues per pupil across school districts within each state. The second is the relationship between revenues per pupil and selected district demographic and fiscal characteristics.[2]

Several factors motivated the selection of these analyses for the report. The amount of interdistrict variation in revenues per pupil was selected because the literature on school finance equity uses

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[1] In the national analyses of unadjusted districted revenues, total revenues for the nation and for each category of school district include 91.9 percent of the nation's school districts and 99.7 percent of the nation's students (table 1-2). The analyses of cost-adjusted revenues include 91 percent of school districts and 99 percent of students (table 1-3). The national analyses of the relationship between selected district demographic and fiscal characteristics and unadjusted revenues include 78 percent of the nation's school districts and 95 percent of the nation's students (table 1-4). The analyses of the relationship between district characteristics and adjusted revenues include 78 percent of school districts and 94 percent of students (table 1-5).

[2] The state analyses of the variation in both unadjusted and cost-adjusted revenues per pupils include all states except Hawaii and the District of Columbia and all the school districts that are included in the national analyses (tables 1-2 and 1-3). The state analyses of the relationship between districts' demographic and fiscal characteristics and both unadjusted and cost-adjusted revenues per pupil, however, only include states in which at least 50 percent of the districts had demographic and fiscal data (tables 1-4 and 1-5). These exclusions were made in order to avoid imputing demographic and fiscal values to more than half of the state's school districts. It should be noted, however, that even with the exclusion of these states, the state analyses of both unadjusted and cost-adjusted district revenues still include 74 percent of the nation's school districts and 85 percent of the nation's students. Missing GCEI and Census Mapping data were imputed when data were missing. If more than half of the districts in a state were missing, that state was not included in the state analysis.

Table 1-2. Total number of school districts and students for regular school districts and percentages based on all school districts, by state: 1997–98

State	Number of school districts	Percent of school districts	Number of students	Percent of students	Percent of revenues
United States	14,254	92.0	45,637,135	100.0	97.0
Alabama	127	100.0	739,321	100.0	100.0
Alaska	53	100.0	130,633	100.0	100.0
Arizona	215	93.5	794,325	100.0	99.0
Arkansas	310	95.1	453,779	99.4	97.0
California	988	91.7	5,664,044	98.9	94.0
Colorado	176	90.3	686,360	100.0	99.0
Connecticut	166	95.4	515,141	100.0	98.0
Delaware	16	84.2	105,697	94.9	92.0
District of Columbia	1	100.0	77,111	100.0	100.0
Florida	67	100.0	2,292,161	100.0	100.0
Georgia	180	91.8	1,375,980	100.0	99.0
Hawaii	1	100.0	189,887	100.0	100.0
Idaho	112	100.0	244,403	100.0	100.0
Illinois	896	85.7	1,971,705	100.0	97.0
Indiana	292	92.7	985,690	100.0	99.0
Iowa	377	96.2	501,054	100.0	94.0
Kansas	304	100.0	468,980	100.0	100.0
Kentucky	176	100.0	645,232	100.0	100.0
Louisiana	66	100.0	774,561	100.0	100.0
Maine	227	77.7	212,038	100.0	98.0
Maryland	24	100.0	830,744	100.0	100.0
Massachusetts	298	76.0	912,500	96.8	95.0
Michigan	656	91.2	1,679,792	100.0	90.0
Minnesota	348	83.7	841,723	100.0	96.0
Mississippi	149	98.0	503,635	99.8	100.0
Missouri	522	99.4	901,668	99.1	97.0
Montana	457	94.6	162,164	100.0	99.0
Nebraska	622	94.7	291,570	100.0	96.0
Nevada	17	100.0	296,621	100.0	100.0
New Hampshire	163	92.1	196,734	100.0	100.0
New Jersey	552	89.8	1,215,967	98.1	95.0
New Mexico	89	100.0	331,673	100.0	100.0
New York	687	99.6	2,834,082	100.0	100.0
North Carolina	117	100.0	1,230,010	100.0	100.0
North Dakota	231	88.8	116,813	100.0	93.0
Ohio	611	84.0	1,846,585	100.0	93.0
Oklahoma	548	93.5	623,681	100.0	92.0
Oregon	198	90.0	540,226	100.0	93.0
Pennsylvania	500	82.6	1,791,100	100.0	90.0
Rhode Island	36	100.0	152,356	100.0	100.0
South Carolina	86	87.8	648,084	100.0	99.0
South Dakota	173	98.3	133,698	100.0	100.0
Tennessee	137	99.3	876,693	100.0	100.0
Texas	1,041	97.9	3,887,847	100.0	100.0
Utah	40	100.0	480,811	100.0	100.0
Vermont	245	74.7	101,413	100.0	90.0
Virginia	132	85.2	1,110,815	100.0	99.0
Washington	296	97.0	991,235	100.0	98.0
West Virginia	55	100.0	300,737	100.0	100.0
Wisconsin	426	99.1	881,552	100.0	100.0
Wyoming	48	100.0	96,504	100.0	100.0

NOTE: Regular school districts exclude non-operating and special districts. The percent of school districts is calculated by dividing the number of regular districts by the total number of districts in the F-33 file shown in table 1-1. The percent of students is calculated by dividing the number of students in regular districts by the total number of students in the F-33 file; the percent of revenues is calculated by dividing the revenues in regular districts by the revenues of all districts in the F-33 file.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 1-3. Total number of school districts and students for regular school districts with Geographic Cost of Education Index (GCEI) and percentages based on all school districts, by state: 1997–98

State	Number of school districts	Percent of school districts	Number of students	Percent of students	Percent of revenues
United States	14,077	91.0	45,496,799	99.0	97.0
Alabama	127	100.0	739,321	100.0	100.0
Alaska	53	100.0	130,633	100.0	100.0
Arizona	214	93.0	794,221	100.0	99.0
Arkansas	310	95.1	453,779	99.4	97.0
California	975	90.5	5,631,188	98.3	93.0
Colorado	176	90.3	686,360	100.0	99.0
Connecticut	166	95.4	515,141	100.0	98.0
Delaware	16	84.2	105,697	94.9	92.0
District of Columbia	1	100.0	77,111	100.0	100.0
Florida	67	100.0	2,292,161	100.0	100.0
Georgia	180	91.8	1,375,980	100.0	99.0
Hawaii	1	100.0	189,887	100.0	100.0
Idaho	112	100.0	244,403	100.0	100.0
Illinois	891	85.2	1,966,656	99.7	97.0
Indiana	292	92.7	985,690	100.0	99.0
Iowa	377	96.2	501,054	100.0	94.0
Kansas	304	100.0	468,980	100.0	100.0
Kentucky	176	100.0	645,232	100.0	100.0
Louisiana	66	100.0	774,561	100.0	100.0
Maine	224	76.7	211,613	99.8	98.0
Maryland	24	100.0	830,744	100.0	100.0
Massachusetts	295	75.3	909,978	96.6	95.0
Michigan	552	76.8	1,655,333	98.5	89.0
Minnesota	327	78.6	820,211	97.4	94.0
Mississippi	149	98.0	503,635	99.8	100.0
Missouri	522	99.4	901,668	99.1	97.0
Montana	456	94.4	162,040	99.9	99.0
Nebraska	618	94.1	289,873	99.4	95.0
Nevada	17	100.0	296,621	100.0	100.0
New Hampshire	162	91.5	194,270	98.7	98.0
New Jersey	550	89.4	1,213,634	98.0	95.0
New Mexico	88	98.9	322,742	97.3	97.0
New York	679	98.4	2,820,089	99.5	99.0
North Carolina	117	100.0	1,230,010	100.0	100.0
North Dakota	229	88.1	116,339	99.6	93.0
Ohio	611	84.0	1,846,585	100.0	93.0
Oklahoma	547	93.3	623,174	99.9	92.0
Oregon	194	88.2	520,290	96.3	90.0
Pennsylvania	500	82.6	1,791,100	100.0	90.0
Rhode Island	36	100.0	152,356	100.0	100.0
South Carolina	86	87.8	648,084	100.0	99.0
South Dakota	173	98.3	133,698	100.0	100.0
Tennessee	137	99.3	876,693	100.0	100.0
Texas	1,041	97.9	3,887,847	100.0	100.0
Utah	40	100.0	480,811	100.0	100.0
Vermont	243	74.1	99,216	97.8	88.0
Virginia	132	85.2	1,110,815	100.0	99.0
Washington	296	97.0	991,235	100.0	98.0
West Virginia	55	100.0	300,737	100.0	100.0
Wisconsin	425	98.8	880,799	99.9	100.0
Wyoming	48	100.0	96,504	100.0	100.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

interdistrict variation in revenue per pupil as a measure of the equity of a state's school finance system (Bern and Stiefel 1984). This analysis was designed to determine whether states uniformly have a high or low level of interdistrict variation in school revenues or whether the level of variation differs across the states.

Of particular interest was whether there are regional differences in interdistrict variation in revenues per pupil. Regional differences are important because different regions of the country have different political cultures, which often affect the way schools are governed and financed. New England states, for example, have historically organized school districts around cities and towns, which then play a major role in the financing of education. Southern states, in contrast, have organized school districts around larger county units, with state governments playing a larger role in education policy and finance (Kirst 1970).

The second set of analyses, for example, analyses of the relationship between school district fiscal capacity and revenues for education was also included because this relationship is also an important equity measure in school finance research (Berne and Stiefel 1984). A state finance system in which revenues for education are a function of a school district's wealth is considered to be less equitable than one in which funding for education is wealth neutral. This study attempted to assess whether the relationship between school district wealth and education revenues still exists nationally and in the 50 states.

In addition, school districts with higher concentrations of poor and minority children often require additional resources for special language programs and remediation in reading and mathematics for children with special educational needs (Parrish, Hikido, and Fowler 1998). The study attempted to ascertain whether, in fact, school districts with larger poor and minority school populations were actually receiving greater resources for education than school districts with lower concentrations of children from poor and minority backgrounds.

Interdistrict Variation in Revenues Per Pupil

The equity framework developed by Berne and Stiefel (1984) contained several measures of interdistrict variation in revenues. This analysis used three measures from that framework—the restricted range ratio, the coefficient of variation, and the Gini coefficient—and a synthesized measure of variation that integrates the three measures.[3]

- ☐ The **restricted range ratio** calculates the difference in revenues per pupil between the district at the 95th percentile and the district at the 5th percentile and divides that difference by revenues per pupil of the district at the 5th percentile. This measure demonstrates how many times greater the resources are at the high end of the distribution than at the low end, while excluding outliers from the analysis.

- ☐ The **coefficient of variation** expresses the standard deviation as a percentage of the mean. It has a minimum value of zero, and increasing values indicate increasing disparity. The coefficient of variation does not exclude outliers and indicates roughly the percentage above and below the mean within which two-thirds of the observations lie.

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[3] The term "restricted range ratio" is used interchangeably with the term "Federal range ratio" in school finance analyses, although Berne and Stiefel use the term Federal range ratio in their framework. The national statistics were calculated based on data for all school districts, the country, not as the averages of states figures. The upper bound for reporting the ratio for states was set at 200, since this level included almost all states whose ratios were less than infinity.

☐ The **Gini coefficient** is the cumulative proportion of revenues against the cumulative proportion of students in districts. If every school district had the same revenues per pupil, this curve would be a straight line with a positive 45-degree slope. The Gini coefficient, which ranges from 0 to 1, is a measure of the difference between the ideal straight line and the curve plotted by the data. A value of 0 indicates no variation, while a value of 1 indicates maximum variation among districts.

☐ The **synthesized measure of variation** is an average of the ranking of the states on each of the three measures discussed above. States were divided into quartiles based on their ranking on the synthesized measure; states in the lowest quartile had the least variation in revenues per pupil, while those in the highest quartile had the greatest variation.

The analyses of interdistrict variation in revenues per pupil using the coefficient of variation and the Gini coefficient are ***weighted*** analyses. Each district's value on the measure of revenues per pupil is weighted by the number of students enrolled in fall 1997. The analyses include 49 states. The District of Columbia and Hawaii were not included in state-level analyses since they each only contain one school district.

Regional analyses of interdistrict variation in revenues per pupil used the quartile ranking of the synthesized measure of variation. Within each region states were classified in either the top two quartiles (states with low variation) or the bottom two quartiles (states with high variation).

Analyses of interdistrict variation in revenues per pupil were conducted using both unadjusted and cost-adjusted revenues. The number of school districts and students included in the unadjusted analyses is found in table 1-2; the number of districts and students in the cost-adjusted analyses is found in table 1-3.

Relationship between Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

The final component of the state analyses was an examination of the relationship between revenues per pupil and the following district demographic and fiscal characteristics: percent minority enrollment; percent school-age children in poverty; median household income; and median value of owner-occupied housing. These analyses used simple correlation coefficients as the basis for determining whether school district revenues per pupil in each state were related to these school district characteristics.

Using their strength and direction, these relationships were characterized as:

☐ **Strong positive**: +0.50 to +1.00; **Moderate positive**: +0.11 to +0.49; **Weak positive**: +0.01 to +0.10;

☐ **Weak negative**: -0.01 to -0.10; **Moderate negative**: -0.11 to -0.49; **Strong negative**: -0.50 to -1.00.

For a correlation to be classified in the above way, the relationship had to be significant at least at the 0.05 level, based on a two-tailed test of significance. When doing these significance tests it is assumed that the data come from a simple random sample without replacement.

All the analyses of correlation between revenues per pupil and district fiscal and demographic characteristics are ***weighted*** analyses. Again, each district's weight in the analyses is the number of students enrolled in fall 1997.

Although included in national analyses, the presence of a single school district in the District of Columbia and Hawaii precluded them from state-level variance and correlation analyses. In addition to the District of Columbia and Hawaii, nine states were excluded from the correlation analyses because more than 50 percent of the school districts were missing the required demographic and fiscal data. These states are Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota.

Finally, correlation analyses were conducted using both unadjusted and cost-adjusted revenues. Table 1-4 presents the number of districts and students in the correlation analysis based on unadjusted revenues nationally and for each state. The 3,355 school districts without Census Mapping Data in the F-33 file were removed. Table 1-5 presents this information for the analysis based on cost-adjusted revenues, with the 3,357 school districts without GCEI data removed. Both cost-adjusted and unadjusted national correlation analyses therefore included about 78 percent of the school districts in the original F-33 file and 94 percent of the students in the original file.

$$r_w = \frac{\Sigma w_i(x_i - \bar{x}_w)(y_i - \bar{y}_w)}{\sqrt{\Sigma\, w_i(x_i - \bar{x}_w)^2\, \Sigma\, w_i(y_i - \bar{y}_w)^2}}$$

The computation of correlations in the report was based on a weighted Pearson product-moment correlation. The computations were implemented by using Proc Corr in SAS. The formula for a weighted Pearson product-moment correlation is

Where

w_i = the number of students in the district

x_i = the district's value on the demographic characteristics (e.g., percent minority enrollment) or the fiscal characteristic (e.g., median housing value)

$\bar{x}_w$ = the weighted mean on the demographic or fiscal characteristic

y_i = the district's value on the revenue measure (e.g., local revenues per pupil)

$\bar{y}_w$ = the weighted mean or the revenue measure

The analysis used two-tailed t-tests comparing each correlation to zero as a way to determine which correlations were significant. The correlation had to be significant at the 0.05 level in order to be reported.

Table 1-4. Total number of school districts and students for regular school districts with Census Mapping Data and percentages based on all school districts, by state: 1997–98

State	Number of school districts	Percent of school districts	Number of students	Percent of students	Percent of revenues
United States	12,157	78.0	43,260,940	95.0	92.0
Alabama	127	100.0	739,321	100.0	100.0
Alaska	53	100.0	130,633	100.0	100.0
Arizona	211	91.7	790,784	99.6	99.0
Arkansas	116	35.6	321,196	70.4	69.0
California	952	88.4	5,547,426	96.9	91.0
Colorado	57	29.2	603,604	87.9	86.0
Connecticut	166	95.4	515,141	100.0	98.0
Delaware	16	84.2	105,697	94.9	92.0
District of Columbia	1	100.0	77,111	100.0	100.0
Florida	67	100.0	2,292,161	100.0	100.0
Georgia	66	33.7	1,039,075	75.5	77.0
Hawaii	1	100.0	189,887	100.0	100.0
Idaho	110	98.2	243,209	99.5	99.0
Illinois	882	84.3	1,956,864	99.2	96.0
Indiana	292	92.7	985,690	100.0	99.0
Iowa	366	93.4	492,080	98.2	92.0
Kansas	304	100.0	468,980	100.0	100.0
Kentucky	86	48.9	494,553	76.6	77.0
Louisiana	66	100.0	774,561	100.0	100.0
Maine	222	76.0	211,536	99.8	98.0
Maryland	24	100.0	830,744	100.0	100.0
Massachusetts	296	75.5	911,858	96.8	95.0
Michigan	553	76.9	1,659,550	98.7	89.0
Minnesota	297	71.4	785,222	93.3	90.0
Mississippi	68	44.7	332,183	65.8	67.0
Missouri	352	67.0	609,277	67.0	64.0
Montana	449	93.0	161,518	99.6	98.0
Nebraska	611	93.0	287,215	98.5	94.0
Nevada	17	100.0	296,621	100.0	100.0
New Hampshire	158	89.3	191,246	97.2	96.0
New Jersey	142	23.1	689,987	55.7	55.0
New Mexico	41	46.1	286,067	86.2	84.0
New York	674	97.7	2,812,718	99.2	99.0
North Carolina	116	99.1	1,214,492	98.7	99.0
North Dakota	225	86.5	114,891	98.4	92.0
Ohio	611	84.0	1,846,585	100.0	93.0
Oklahoma	63	10.8	321,252	51.5	47.0
Oregon	190	86.4	516,606	95.6	89.0
Pennsylvania	500	82.6	1,791,100	100.0	90.0
Rhode Island	35	97.2	148,385	97.4	97.0
South Carolina	86	87.8	648,084	100.0	99.0
South Dakota	81	46.0	105,792	79.1	78.0
Tennessee	135	97.8	875,401	99.9	100.0
Texas	1,041	97.9	3,887,847	100.0	100.0
Utah	40	100.0	480,811	100.0	100.0
Vermont	237	72.3	96,381	95.0	86.0
Virginia	132	85.2	1,110,815	100.0	99.0
Washington	295	96.7	991,226	100.0	98.0
West Virginia	55	100.0	300,737	100.0	100.0
Wisconsin	424	98.6	880,316	99.9	100.0
Wyoming	48	100.0	96,504	100.0	100.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Table 1-5. Total number of school districts and students for regular school districts with Geographic Cost of Education Index (GCEI) and Census Mapping Data and percentages based on all school districts, by state: 1997–98

State	Number of school districts	Percent of school districts	Number of students	Percent of students	Percent of revenues
United States	12,155	78.0	43,254,843	94.0	92.0
Alabama	127	100.0	739,321	100.0	100.0
Alaska	53	100.0	130,633	100.0	100.0
Arizona	211	91.7	790,784	99.6	99.0
Arkansas	116	35.6	321,196	70.4	69.0
California	952	88.4	5,547,426	96.9	91.0
Colorado	57	29.2	603,604	87.9	86.0
Connecticut	166	95.4	515,141	100.0	98.0
Delaware	16	84.2	105,697	94.9	92.0
District of Columbia	1	100.0	77,111	100.0	100.0
Florida	67	100.0	2,292,161	100.0	100.0
Georgia	66	33.7	1,039,075	75.5	77.0
Hawaii	1	100.0	189,887	100.0	100.0
Idaho	110	98.2	243,209	99.5	99.0
Illinois	882	84.3	1,956,864	99.2	96.0
Indiana	292	92.7	985,690	100.0	99.0
Iowa	366	93.4	492,080	98.2	92.0
Kansas	304	100.0	468,980	100.0	100.0
Kentucky	86	48.9	494,553	76.6	77.0
Louisiana	66	100.0	774,561	100.0	100.0
Maine	222	76.0	211,536	99.8	98.0
Maryland	24	100.0	830,744	100.0	100.0
Massachusetts	295	75.3	909,978	96.6	95.0
Michigan	552	76.8	1,655,333	98.5	89.0
Minnesota	297	71.4	785,222	93.3	90.0
Mississippi	68	44.7	332,183	65.8	67.0
Missouri	352	67.0	609,277	67.0	64.0
Montana	449	93.0	161,518	99.6	98.0
Nebraska	611	93.0	287,215	98.5	94.0
Nevada	17	100.0	296,621	100.0	100.0
New Hampshire	158	89.3	191,246	97.2	96.0
New Jersey	142	23.1	689,987	55.7	55.0
New Mexico	41	46.1	286,067	86.2	84.0
New York	674	97.7	2,812,718	99.2	99.0
North Carolina	116	99.1	1,214,492	98.7	99.0
North Dakota	225	86.5	114,891	98.4	92.0
Ohio	611	84.0	1,846,585	100.0	93.0
Oklahoma	63	10.8	321,252	51.5	47.0
Oregon	190	86.4	516,606	95.6	89.0
Pennsylvania	500	82.6	1,791,100	100.0	90.0
Rhode Island	35	97.2	148,385	97.4	97.0
South Carolina	86	87.8	648,084	100.0	99.0
South Dakota	81	46.0	105,792	79.1	78.0
Tennessee	135	97.8	875,401	99.9	100.0
Texas	1,041	97.9	3,887,847	100.0	100.0
Utah	40	100.0	480,811	100.0	100.0
Vermont	237	72.3	96,381	95.0	86.0
Virginia	132	85.2	1,110,815	100.0	99.0
Washington	295	96.7	991,226	100.0	98.0
West Virginia	55	100.0	300,737	100.0	100.0
Wisconsin	424	98.6	880,316	99.9	100.0
Wyoming	48	100.0	96,504	100.0	100.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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Definitions

Several revenues measures were used in the analyses described above. These include local revenues, state revenues, the total of state and local revenues, federal revenues, and total revenues. Local revenues analyzed in the report are property tax revenues and student fees; state revenues included general formula assistance and instructional program funds; federal revenues include Title I and other federal revenues. These revenue measures are defined below:

Local revenues include funds from local property taxes, non-property taxes (e.g., sales, utility, and income taxes), contributions from parent governments (in dependent school systems), investments, and revenues from student activities, textbook sales, transportation and tuition fees, and food service revenues.

- **Property tax revenues** include taxes levied by a local education agency (LEA) on the assessed value of real and personal property located within the LEA, which is the final authority in determining the amount of tax raised for school purposes.
- **Student fees** include revenues from individuals for tuition and fees for transportation and other school services.

State revenues include general formula assistance, funds for students with special educational needs (e.g., special education, bilingual education, vocational education), funds for staff improvement programs, as well as funds for school lunch, transportation, and capital outlay.

- **State general formula assistance revenues** include revenue recorded as grants from state funds, which can be used for any legal purpose desired by the LEA without restriction.
- **Instructional program revenues** include funds received by LEAs from the state for special education, compensatory and basic skills attainment, bilingual education, gifted and talented education, and vocational education.

Federal revenues include funds from federal sources that flow through state governments (e.g., Title I, Eisenhower Professional Development Program (Eisenhower Math and Science) and funds from federal sources that flow directly to the school district (e.g., Impact Aid, and bilingual education funds).

Several of the analyses in the report stratify states on different characteristics, including region. The grouping of states into regions was based on the classification used by the U.S. Bureau of the Census. It should be recognized that regional averages often mask differences among states and school districts with the region. However, since "region" is generally recognized as a standard stratification of states in many statistical reports, it was used in this report as well to present differences in revenues in different parts of the country. The Census categories of region include the following states.

- **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
- **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
- **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

- **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

The analyses of relationships between school district characteristics and local, state, and federal revenues include two measures of district wealth (median household income and median value of owner-occupied housing)[4] and two demographic measures (percent minority enrollment and percent school-age children in poverty)—all from the 1990 Census. These measures have the following definitions:

- **Median household income** is defined as the median income of the householder and all other persons 15 years old and over in the household, whether related to the householder or not, in calendar year 1989.
- **Median value owner-occupied housing** is defined as the median value of specified owner-occupied housing units in a district in 1990.
- **Percent minority students** is defined as the percent of students who enrolled in public schools who are African American, Hispanic, Asian, American Indian, and Alaskan Native in 1990.
- **Percent children in poverty** is defined as children within a district who are 5 years of age and living in households with income at or below the poverty level in 1989.

It should be recognized that the correlations presented in the report are based on bivariate statistics that do not reflect the influence of other factors on school district revenues. The influence of other factors would need to be examined through multivariate analyses, which was beyond the scope of this report.

Organization of the Report

The balance of the report is organized into six chapters. Chapter 2 presents an analysis of local revenues, including property taxes and student fees. Chapter 3 examines state revenues, including general formula assistance and instructional program revenues. Chapter 4 examines state and local revenues combined. Chapter 5 examines Title I and other federal revenues. Chapter 6 presents an analysis of total district revenues, including local, state and federal funds. Chapter 7 presents a synthesis and summary of the report's major findings. Appendices to the report contain technical notes and detailed correlation tables on district revenues. Finally, the glossary provides definitions of key terms in the report.

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[4] In most school districts, property taxes are the primary source of local revenue for education. Median value of owner-occupied housing is one measure of a school district's property tax base. The use of residential property as a proxy for total property wealth may, however, affect the analyses of the relationships between district wealth and district revenues, since it excludes commercial and industrial property from total property valuation. However, it was used in these analyses, since it is the only standard measure of property wealth that is available across states that can be attributed to school districts. Since school district residents pay their taxes from income and other assets, median household income is used as another measure of a community's tax base.

Chapter 2: Local Revenues

Local Revenues

Local revenues for public elementary and secondary education totaled $146.9 billion in 1997–98 (table 2-1). This was approximately 46 percent of total district revenues ($321.6 billion) in 1997–98. Just over 63 percent of local revenues came from property taxes ($93.2 billion) (table 2-6), with just over 4 percent from student fees ($6.0 billion) (table 2-7), and 32 percent from other local sources.

Local Revenues Per Pupil

Local revenues per pupil in the United States averaged $3,219 in 1997–98 before cost adjustments. Local revenues per pupil were highest in the Northeast ($5,232) and lowest in the West ($2,228). At $3,453 per pupil, local revenues in the Midwest were higher than in the South ($2,736) (table 2-1). The use of cost adjustments decreased the range between the highest and lowest regions to between $3,004 and $2,585. The unadjusted ratio of revenues per pupil between the highest and lowest regions was 2.3 to 1. Cost adjustments decreased the ratio to 2.2 to 1. After adjusting for cost of education differences, the Northeast remained the region with the highest per pupil revenues at $4,699, and the West remained the region with the lowest local revenues per pupil at $2,114.

Very large districts tended to have lower local revenues per pupil than smaller districts, especially after cost adjustments. Before cost adjustments, local revenues per pupil averaged $3,462 in districts with fewer than 1,000 students, and $2,975 in districts with 10,000 or more students. After cost adjustments, local revenues per pupil averaged $3,819 in the smallest districts and $2,896 in the largest. Thus, the difference between the smallest and the largest districts increased from $487 to $923 per pupil. Correlation studies, however, found a weak negative relationship between district enrollment and local revenues per pupil, both before (-0.03) and after (-0.05) cost adjustments (tables A-1 and A-2).

Before cost adjustments, local revenues per pupil showed positive relationships with two measures of district wealth—median household income (+0.53) and median value owner-occupied housing (+0.35) (table A-3). This indicates that districts in areas with a larger economic base tended to have more revenues from local sources than districts in areas with smaller economic bases. School districts with median household incomes at or above $35,000 had average local revenues per pupil of $4,464, while districts with median household incomes below $20,000 had revenues per pupil of $1,781 (table 2-1). Similarly, districts with median housing values at or above $85,000 had average local revenues of $4,069 per pupil, while districts with median housing values below $40,000 had local revenues per pupil of $2,148.

After cost adjustments, there was still a relationship between district wealth and local revenues per pupil. Cost adjustments reduced the range from $2,683 to $2,138 between the highest- and lowest-income districts, and from $1,921 to $1,325 between districts with the highest and lowest housing

Table 2-1. Local revenues, cost-adjusted local revenues, local revenues per pupil, and cost-adjusted local revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median income, and median value owner-occupied housing: 1997–98

School district characteristics	Local revenues (in thousands)	Cost-adjusted local revenues (in thousands)	Local revenues per pupil	Cost-adjusted local revenues per pupil
All districts	$146,892,005	$144,105,712	$3,219	$3,167
Region				
Northeast	41,494,209	37,153,679	5,232	4,699
Midwest	36,675,257	37,156,742	3,453	3,516
South	45,084,952	47,499,238	2,736	2,883
West	23,637,587	22,296,052	2,228	2,114
District enrollment				
0–999	9,410,880	10,234,507	3,462	3,819
1,000–4,999	45,138,689	44,463,461	3,476	3,439
5,000–9,999	24,285,487	23,250,651	3,442	3,302
10,000 or more	68,056,949	66,157,093	2,975	2,896
Minority enrollment				
Less than 5 percent	38,879,006	39,410,649	3,442	3,491
5 percent–<20 percent	43,093,264	41,987,294	3,591	3,499
20 percent–<50 percent	37,595,417	37,121,137	2,929	2,892
50 percent or more	19,652,429	18,370,589	2,757	2,577
Data missing	7,671,889	7,216,043	—	—
School-age children in poverty				
Less than 5 percent	29,072,244	26,591,156	5,621	5,148
5 percent–<15 percent	52,480,297	51,876,028	3,389	3,350
15 percent–<25 percent	30,938,661	32,128,305	2,611	2,711
25 percent or more	26,728,914	26,294,180	2,485	2,445
Data missing	7,671,889	7,216,043	—	—
Median household income				
Less than $20,000	6,165,620	6,835,652	1,781	1,975
$20,000–<$25,000	20,670,962	22,145,374	2,462	2,637
$25,000–<$30,000	33,397,096	33,589,172	2,980	2,997
$30,000–<$35,000	22,592,507	22,388,622	2,987	2,960
$35,000 or more	56,393,931	51,930,849	4,464	4,113
Data missing	7,671,889	7,216,043	—	—
Median value owner-occupied housing				
Less than $40,000	7,859,244	8,796,982	2,148	2,404
$40,000–<$55,000	18,706,071	20,194,964	2,389	2,580
$55,000–<$85,000	42,150,152	43,298,136	2,917	2,998
$85,000 or more	70,504,649	64,599,587	4,069	3,729
Data missing	7,671,889	7,216,043	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

values. The ratios were reduced from 2.5 to 2.1 to 1 for median household income and from 1.9 to 1.6 to 1 for median value owner-occupied housing. Correlation measures decreased after cost adjustments. The correlation between adjusted local revenues per pupil and median household income was +0.45 after cost adjustments compared to +0.53 before.[5] The correlation between local revenues per pupil and owner-occupied housing value was +0.23 after cost adjustments and +0.35 before (tables A-3 and A-4).

Local revenues per pupil showed a negative relationship with two district demographic characteristics—percent minority enrollment and percent school-age children living in poverty—both before and after cost adjustments. Before adjustments, school districts with the highest minority enrollments had lower local revenues per pupil than districts with the lowest minority enrollments, $2,757 and $3,442, respectively. After adjustments, the range between the lowest- and highest-minority districts increased—from \$685 to \$914. Correlation analysis also demonstrated this relationship between local revenues per pupil and percent minority enrollment (-0.16 unadjusted, -0.20 adjusted).

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[5] The decrease reported here is as expected because correlation measure is a function of the range of difference. When the range decreases, so will the correlation.

Local revenues per pupil were highest in the lowest-poverty districts and lowest in the highest-poverty districts both before and after cost adjustments—\$5,621 and \$2,485, respectively, before cost adjustments, and \$5,148 and \$2,445 respectively, after cost adjustments. Correlation analysis also demonstrated that districts with greater poverty tended to have lower local revenues per pupil (-0.39 unadjusted, -0.38 adjusted).

Variations in Local Revenues Per Pupil

Tables 2-2 and 2-3 present three measures of variation in local revenues per pupil across school districts in the 49 states with more than one school district. These include the restricted range ratio, the coefficient of variation, and the Gini coefficient. The table also includes a column with the state's average rank on these three variation measures. A final column presents each state's quartile assignment based on the average ranking. The 49 states were ranked on their average ranking and divided into four quartiles of approximately 12 states each. States in quartile 1 had the lowest variation; states in quartile 4 had the highest variation.

Restricted Range Ratio

The restricted range ratio for unadjusted local revenues per pupil across the United States was 6.19 (table 2-2). This means that local revenues in the district at the 95th percentile were 6.19 times higher than local revenues in the district at the 5th percentile. Variation in the states ranged from 0.48 in Nevada to 6.20 in Massachusetts. Only 1 state—Massachusetts—had a restricted range ratio that was higher than the United States ratio.

When cost adjustments were applied, the restricted range ratio for local revenues per pupil across the United States decreased to 5.39. Again, only Massachusetts exceeded the national variation after cost adjustments (table 2-3). Cost adjustments decreased the range between the lowest-variation and highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.46 in Nevada to 5.93 in Massachusetts.

Coefficient of Variation

The coefficient of variation for unadjusted local revenues per pupil across the United States was 0.64 (table 2-2). Variation in the states ranged from 0.16 in Nevada to 0.64 in Kansas. No states had a coefficient of variation higher than that for the United States, though Kansas' was equal to the United States coefficient.

When local revenues were adjusted for cost of education differences, the coefficient of variation for local revenues per pupil across the United States was reduced to 0.59 (table 2-3). Three states exceeded the national variation after cost adjustments: Kansas, Texas, and Wyoming. Cost adjustments had no effect on the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.18 in Nevada to 0.67 in Texas.

Table 2-2. Variation in local revenues per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	6.19	†	0.64	†	0.32	†	†	†
Alabama	1.79	9	0.47	37	0.22	27	24.33	3
Alaska	4.26	45	0.63	46	0.22	27	39.33	4
Arizona	3.53	38	0.45	30	0.23	31	33.00	3
Arkansas	3.12	34	0.46	33	0.24	35	34.00	3
California	3.16	35	0.50	39	0.25	37	37.00	3
Colorado	2.19	17	0.37	19	0.19	13	16.33	2
Connecticut	3.68	40	0.46	33	0.26	41	38.00	4
Delaware	2.04	13	0.34	9	0.19	13	11.67	1
District of Columbia	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])
Florida	1.66	7	0.34	9	0.18	9	8.33	1
Georgia	3.94	43	0.45	30	0.25	37	36.67	3
Hawaii	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])
Idaho	2.96	29	0.52	41	0.27	42	37.33	4
Illinois	4.68	46	0.56	44	0.28	45	45.00	4
Indiana	1.58	5	0.30	4	0.16	4	4.33	1
Iowa	1.04	2	0.22	2	0.12	2	2.00	1
Kansas	3.87	41	0.64	49	0.27	42	44.00	4
Kentucky	3.21	37	0.45	30	0.25	37	34.67	3
Louisiana	2.96	29	0.36	14	0.19	13	18.67	2
Maine	2.22	18	0.41	23	0.21	24	21.67	2
Maryland	2.59	28	0.36	14	0.20	20	20.67	2
Massachusetts	6.20	49	0.51	40	0.29	47	45.33	4
Michigan	4.19	44	0.59	45	0.30	48	45.67	4
Minnesota	3.09	33	0.55	43	0.24	35	37.00	3
Mississippi	2.18	16	0.36	14	0.20	20	16.67	2
Missouri	2.00	12	0.36	14	0.19	13	13.00	2
Montana	2.10	15	0.46	33	0.20	20	22.67	2
Nebraska	2.05	14	0.32	7	0.16	4	8.33	1
Nevada	0.48	1	0.16	1	0.06	1	1.00	1
New Hampshire	1.07	3	0.25	3	0.14	3	3.00	1
New Jersey	4.88	47	0.48	38	0.27	42	42.33	4
New Mexico	2.26	21	0.37	19	0.18	9	16.33	2
New York	3.87	41	0.52	41	0.25	37	39.67	4
North Carolina	1.79	9	0.33	8	0.19	13	10.00	1
North Dakota	1.20	4	0.36	14	0.17	7	8.33	1
Ohio	3.07	32	0.44	27	0.23	31	30.00	3
Oklahoma	2.24	19	0.41	23	0.21	24	22.00	2
Oregon	1.73	8	0.37	19	0.19	13	13.33	2
Pennsylvania	2.30	23	0.41	23	0.22	27	24.33	3
Rhode Island	2.47	26	0.35	12	0.19	13	17.00	2
South Carolina	1.64	6	0.34	9	0.18	9	8.00	1
South Dakota	2.24	19	0.30	4	0.16	4	9.00	1
Tennessee	2.39	25	0.35	12	0.20	20	19.00	2
Texas	5.33	48	0.63	46	0.28	45	46.33	4
Utah	1.79	9	0.44	27	0.17	7	14.33	2
Vermont	3.06	31	0.42	26	0.22	27	28.00	3
Virginia	2.54	27	0.44	27	0.23	31	28.33	3
Washington	3.18	36	0.37	19	0.21	24	26.33	3
West Virginia	2.29	22	0.31	6	0.18	9	12.33	1
Wisconsin	2.32	24	0.46	33	0.23	31	29.33	3
Wyoming	3.53	38	0.63	46	0.33	49	44.33	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 2-3. Variation in local revenues per pupil (cost-adjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	5.39	†	0.59	†	0.30	†	†	†
Alabama	1.69	11	0.44	31	0.21	26	22.67	2
Alaska	4.90	46	0.52	45	0.22	31	40.67	4
Arizona	3.45	41	0.45	35	0.23	37	37.67	4
Arkansas	2.63	30	0.43	30	0.22	31	30.33	3
California	2.84	33	0.47	37	0.24	40	36.67	4
Colorado	2.26	23	0.38	19	0.19	19	20.33	2
Connecticut	4.06	45	0.45	35	0.25	41	40.33	4
Delaware	1.81	13	0.32	9	0.18	13	11.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.40	5	0.33	11	0.16	6	7.33	1
Georgia	3.06	38	0.39	24	0.21	26	29.33	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	2.98	37	0.51	42	0.26	42	40.33	4
Illinois	3.65	43	0.51	42	0.26	42	42.33	4
Indiana	1.54	7	0.28	3	0.15	4	4.67	1
Iowa	1.14	3	0.22	2	0.12	2	2.33	1
Kansas	3.19	39	0.66	48	0.26	42	43.00	4
Kentucky	2.91	35	0.41	26	0.23	37	32.67	3
Louisiana	2.93	36	0.35	14	0.18	13	21.00	2
Maine	2.45	25	0.42	28	0.21	26	26.33	3
Maryland	2.56	27	0.35	14	0.19	19	20.00	2
Massachusetts	5.93	49	0.50	40	0.28	46	45.00	4
Michigan	3.92	44	0.56	46	0.28	46	45.33	4
Minnesota	2.55	26	0.51	42	0.21	26	31.33	3
Mississippi	1.99	17	0.35	14	0.19	19	16.67	2
Missouri	1.53	6	0.30	5	0.16	6	5.67	1
Montana	2.58	28	0.50	40	0.22	31	33.00	3
Nebraska	2.11	19	0.37	18	0.18	13	16.67	2
Nevada	0.46	1	0.18	1	0.06	1	1.00	1
New Hampshire	1.12	2	0.28	3	0.14	3	2.67	1
New Jersey	5.07	47	0.48	38	0.27	45	43.33	4
New Mexico	2.11	19	0.38	19	0.18	13	17.00	2
New York	2.88	34	0.48	38	0.23	37	36.33	3
North Carolina	1.68	10	0.31	7	0.17	8	8.33	1
North Dakota	1.39	4	0.39	24	0.17	8	12.00	1
Ohio	2.64	31	0.41	26	0.22	31	29.33	3
Oklahoma	2.03	18	0.42	28	0.20	23	23.00	3
Oregon	1.80	12	0.38	19	0.18	13	14.67	2
Pennsylvania	1.93	16	0.36	17	0.20	23	18.67	2
Rhode Island	2.61	29	0.38	19	0.21	26	24.67	3
South Carolina	1.63	9	0.33	11	0.17	8	9.33	1
South Dakota	1.91	15	0.31	7	0.15	4	8.67	1
Tennessee	1.88	14	0.32	9	0.18	13	12.00	1
Texas	5.11	48	0.67	49	0.28	46	47.67	4
Utah	1.60	8	0.44	31	0.17	8	15.67	2
Vermont	3.24	40	0.44	31	0.22	31	34.00	3
Virginia	2.11	19	0.38	19	0.20	23	20.33	2
Washington	2.73	32	0.34	13	0.19	19	21.33	2
West Virginia	2.13	22	0.30	5	0.17	8	11.67	1
Wisconsin	2.39	24	0.44	31	0.22	31	28.67	3
Wyoming	3.49	42	0.63	47	0.33	49	46.00	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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Gini Coefficient

The Gini coefficient for unadjusted local revenues per pupil across the United States was 0.32 (table 2-2). A Gini coefficient of 0 means revenues are distributed equally; higher values such as 0.32 imply revenues are more concentrated among a smaller share of students. Variation in the states ranged from 0.06 in Nevada to 0.33 in Wyoming. Only Wyoming had a Gini coefficient higher than that for the United States.

Cost of education adjustments decreased the Gini coefficient across the United States to 0.30 (table 2-3). Again, only Wyoming exceeded the United States level of variation. Cost adjustments had no effect on the range of variation among the states. After adjustments, the Gini coefficient still ranged from 0.06 in Nevada to 0.33 in Wyoming.

Overall Variation

To take all three measure of variation into account at once, a synthesized measure of variation was created. The states were ranked on each of the three measures of variation, with the lowest-ranking states being those with the values closest to zero (i.e., states having the least variation in revenues per pupil). The three rank values for each state were then averaged to create an "average rank" for the state. The states were then assigned to quartiles based on their average rank value, with states in quartile 1 being those with least overall variation.

In a synthesis of the three unadjusted variation measures, states in the Northeast had high variation relative to states across the country, while states in the South had low variation among districts (figure 2-1). Before cost adjustments, 67 percent of the states in the Northeast ranked in the lowest two quartiles, while 78 percent ranked in these quartiles after cost adjustments (table 2-4). Two-thirds of the states in the South (63 percent before cost adjustments, 69 percent after) ranked in the highest two quartiles. States in the Midwest and the West were evenly spread among the quartiles.

Relationship between Local Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, local revenues per pupil in unadjusted dollars showed a positive relationship with a school district's median household income (+0.53) and its median value owner-occupied housing (+0.35) (table A-3). Similarly, at the state level, median value owner-occupied housing was positively related to local revenues per pupil in all but 6 of the 40 states with available data;[6] there was no significant relationship found in Alaska, Montana, Nevada, North Dakota, or Utah, and a moderate negative relationship in Nebraska (table 2-5). A moderate positive relationship was found in 14 states, while half of the states with sufficient data (20) showed a strong positive relationship between owner-occupied housing value and local revenues per pupil. Median household income was also positively related to local revenues per pupil in 36 states. Four states (Montana, Nebraska, Nevada, and Utah) showed no statistically significant relationship between district income and local revenues per pupil, and no states showed a negative relationship between household income and revenues.

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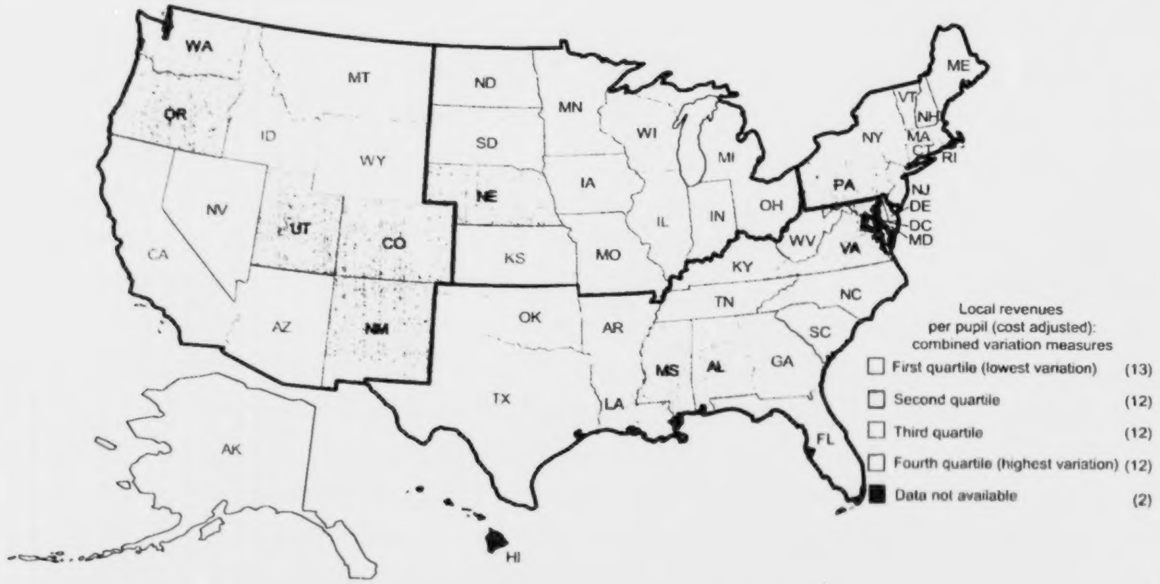
[6] Although included in national analyses, the presence of a single school district in the District of Columbia and Hawaii precluded them from state-level variance and correlation analyses. Nine additional states were also excluded from state-level correlation analyses because more than 50 percent of the school districts were missing the required demographic and fiscal data.

Figure 2-1. Synthesis of variation measures of local revenues per pupil (cost-adjusted dollars), by state: 1997–98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Local revenues per pupil (cost adjusted): combined variation measures
☐ First quartile (lowest variation) (13)
☐ Second quartile (12)
☐ Third quartile (12)
☐ Fourth quartile (highest variation) (12)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 2-4. Variation in local revenues per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted local revenues per pupil		
Northeast	33	67
Midwest	50	50
South	63	38
West	50	50
Cost-adjusted local revenues per pupil		
Northeast	22	78
Midwest	50	50
South	69	31
West	50	50

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

After cost adjustments, the relationship between district wealth and local revenues per pupil was weakened for the United States as a whole and for many states (table 2-5). The national cost-adjusted correlation with median household income was +0.45, and the national cost-adjusted correlation with median value owner-occupied housing was +0.23 (table A-4). After cost adjustments, three states (Montana, Nebraska, and North Dakota) showed a negative relationship between local revenues per pupil and median value owner-occupied housing (figure 2-2). Only two states (Nevada and Utah) showed no significant relationship, while the remaining 35 states with sufficient data continued to show a positive

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Table 2-5. Correlations between local revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	[none]	Nevada[1]
Moderate positive relationship	Maine, Minnesota, Missouri, Oregon, Tennessee, West Virginia	Minnesota, Tennessee
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	Texas[1]
Moderate negative relationship	Alabama, Arizona, California, Connecticut, Idaho, Illinois, Kansas, Michigan, Montana, Nebraska, New York, North Carolina, North Dakota, Pennsylvania, Wisconsin, *US overall*	Alabama, Arizona, California, Idaho, Illinois, Iowa,[1] Kansas, Michigan, Montana, Nebraska, New York, North Carolina, North Dakota, Pennsylvania, Wisconsin, *US overall*
Strong negative relationship	Rhode Island	Connecticut,[1] Rhode Island
No significant relationship	Alaska, Delaware, Florida, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Nevada, New Hampshire, Ohio, South Carolina, Texas, Utah, Vermont, Virginia, Washington, Wyoming	Alaska, Delaware, Florida, Indiana, Louisiana, Maine,[1] Maryland, Massachusetts, Missouri,[1] New Hampshire, Ohio, Oregon,[1] South Carolina, Utah, Vermont, Virginia, Washington, West Virginia,[1] Wyoming
School-age children in poverty		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	Nebraska	Montana[1]
Moderate negative relationship	Alaska, Arizona, California, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts, Michigan, Missouri, Montana, New Hampshire, North Carolina, North Dakota, Ohio, Oregon, South Carolina, Texas, Vermont, Virginia, Washington, Wisconsin, Wyoming, *US overall*	Alabama,[1] Alaska, Arizona, California, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Missouri, New Hampshire, North Carolina, North Dakota, Ohio, Oregon, Texas, Vermont, Virginia, Washington, Wisconsin, Wyoming, *US overall*
Strong negative relationship	Alabama, Connecticut, Delaware, Maryland, New York, Pennsylvania, Rhode Island, West Virginia	Connecticut, Delaware, Maryland, New York, Pennsylvania, Rhode Island, West Virginia
No significant relationship	Minnesota, Nevada, Tennessee, Utah	Maine,[1] Minnesota, Nebraska,[1] Nevada, South Carolina,[1] Tennessee, Utah
Median household income		
Strong positive relationship	Alabama, Alaska, Connecticut, Delaware, Illinois, Louisiana, Maryland, Massachusetts, Michigan, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Connecticut, Delaware, Illinois, Louisiana, Maryland, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, Washington, West Virginia, Wisconsin, Wyoming
Moderate positive relationship	Arizona, California, Florida, Idaho, Indiana, Iowa, Kansas, Maine, Minnesota, New Hampshire, North Dakota, Oregon, South Carolina, Tennessee, Texas, Vermont	Arizona, California, Florida, Idaho, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri,[1] Oregon, South Carolina, Tennessee, Texas, Vermont, *US overall*[1]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	Nebraska[1]
Strong negative relationship	[none]	[none]
No significant relationship	Montana, Nebraska, Nevada, Utah	Montana, Nevada, New Hampshire,[1] North Dakota,[1] Utah
Median value owner-occupied housing		
Strong positive relationship	Alabama, Delaware, Florida, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, Washington, West Virginia, Wisconsin	Alabama, Delaware, Florida, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, Washington, Wisconsin
Moderate positive relationship	Arizona, California, Connecticut, Iowa, Kansas, Maine, Minnesota, New Hampshire, Oregon, South Carolina, Tennessee, Texas, Vermont, Wyoming, *US overall*	Alaska,[1] Arizona, California, Connecticut, Iowa, Kansas, Maine, Minnesota, Missouri,[1] New Hampshire, New York,[1] Oregon, South Carolina, Tennessee, Texas, Vermont, West Virginia,[1] Wyoming, *US overall*
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Nebraska	Montana,[1] Nebraska, North Dakota[1]
Strong negative relationship	[none]	[none]
No significant relationship	Alaska, Montana, Nevada, North Dakota, Utah	Nevada, Utah

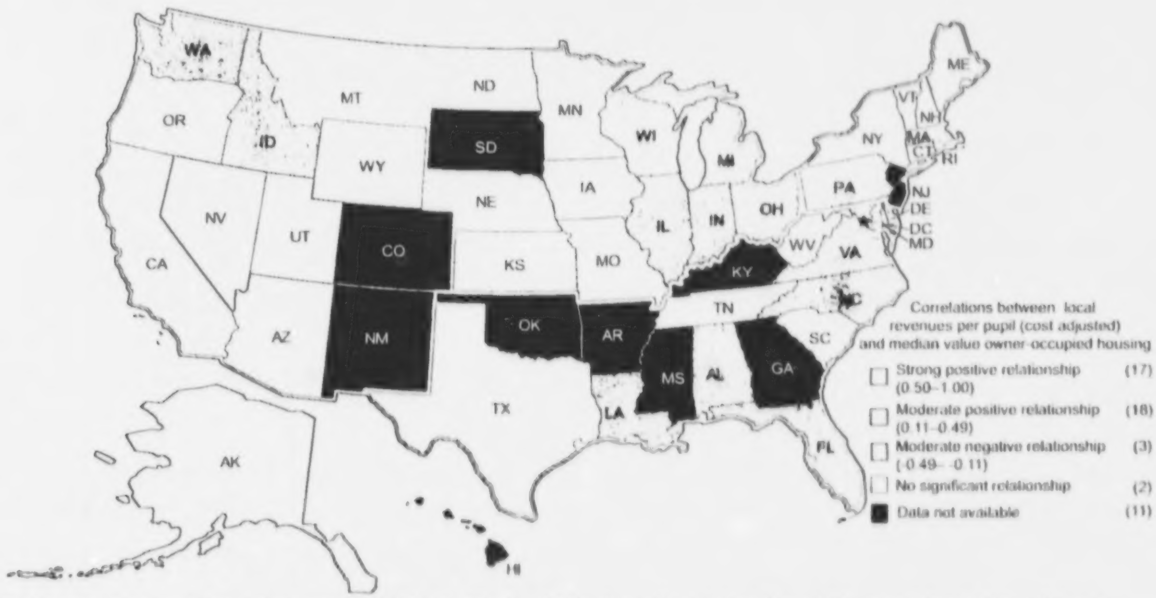
Table 2-5. Correlations between local revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	Delaware	Delaware
Moderate positive relationship	Arkansas, Georgia, Indiana, Kentucky, Mississippi, Missouri, Tennessee, Washington, West Virginia	Georgia, Kentucky, Mississippi, Tennessee, West Virginia
Weak positive relationship	Ohio	[none]
Weak negative relationship	Nebraska, *US overall*	*US overall*
Moderate negative relationship	Connecticut, Iowa, Maine, Massachusetts, Montana, New Hampshire, New Jersey, Rhode Island, Vermont	Connecticut, Iowa, Maine, Massachusetts, Montana, Nebraska,[1] New Hampshire, New Jersey, Rhode Island, Vermont
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Alaska, Arizona, California, Colorado, Florida, Idaho, Illinois, Kansas, Louisiana, Maryland, Michigan, Minnesota, Nevada, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Virginia, Wisconsin, Wyoming	Alabama, Alaska, Arizona, Arkansas,[1] California, Colorado, Florida, Idaho, Illinois, Indiana,[1] Kansas, Louisiana, Maryland, Michigan, Minnesota, Missouri,[1] Nevada, New Mexico, New York, North Carolina, North Dakota, Ohio,[1] Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Virginia, Washington,[1] Wisconsin, Wyoming, *US overall*

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 2-2. Correlations between local revenues per pupil and median value owner-occupied housing (cost-adjusted dollars), by state: 1997–98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Correlations between local revenues per pupil (cost adjusted) and median value owner-occupied housing
☐ Strong positive relationship (0.50–1.00) (17)
☐ Moderate positive relationship (0.11–0.49) (18)
☐ Moderate negative relationship (-0.49– -0.11) (3)
☐ No significant relationship (2)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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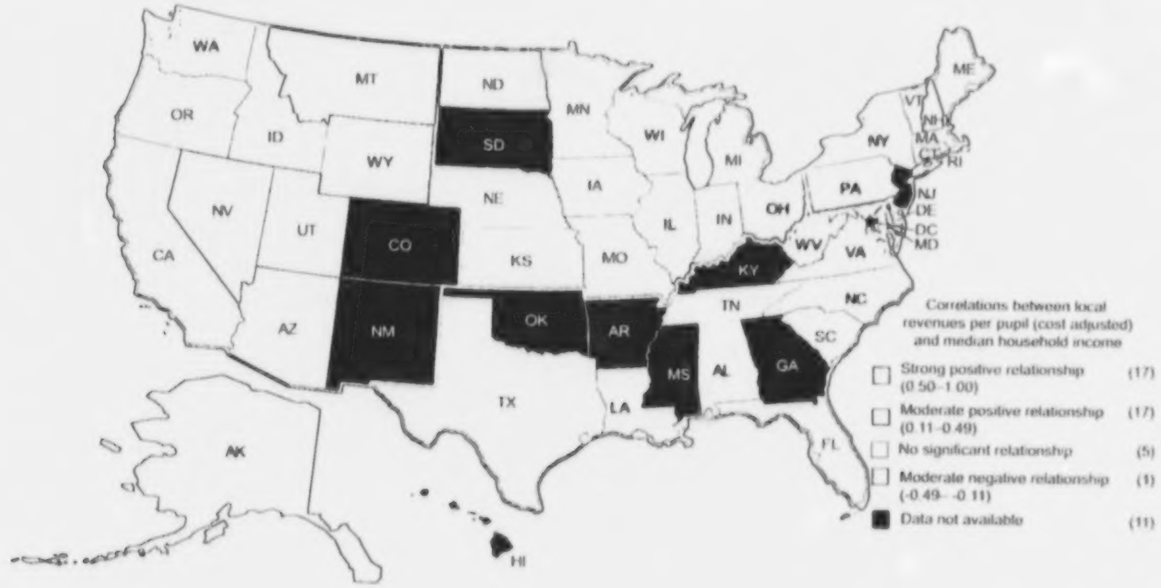
relationship between housing values and local revenues. After cost adjustments, 1 state (Nebraska) demonstrated a negative relationship between median household income and local revenues per pupil (figure 2-3).

Figure 2-3. Correlations between local revenues per pupil and median household income (cost-adjusted dollars), by state: 1997–98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Correlations between local revenues per pupil (cost adjusted) and median household income
☐ Strong positive relationship (0.50–1.00) (17)
☐ Moderate positive relationship (0.11–0.49) (17)
☐ No significant relationship (5)
☐ Moderate negative relationship (-0.49– -0.11) (1)
■ Data not available (11)

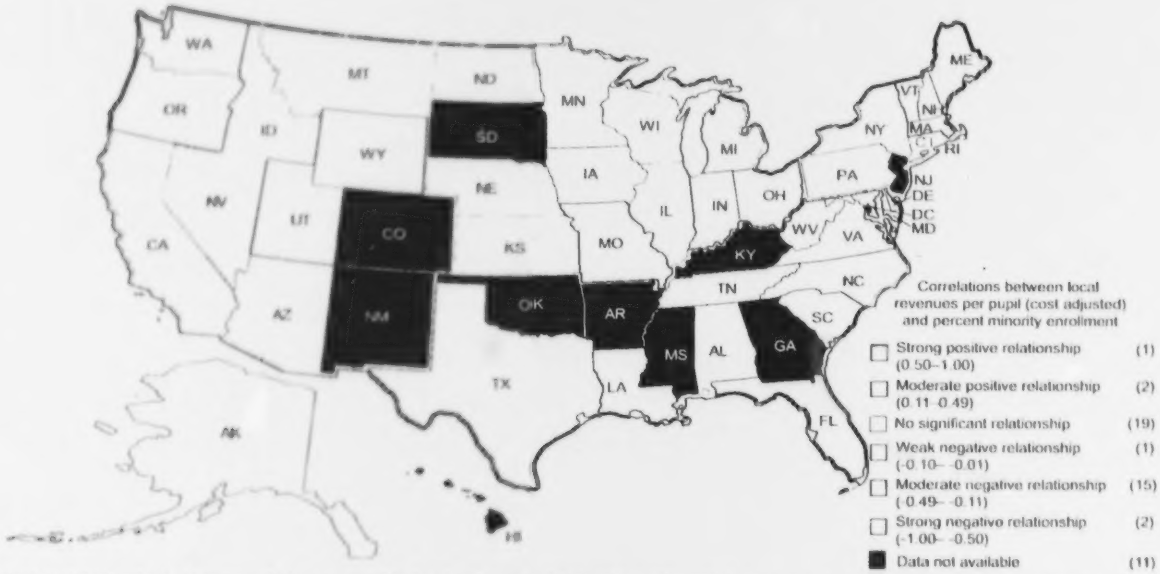
NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Local revenues per pupil showed a small negative relationship with minority enrollment for the United States as a whole, both before (-0.16) and after (-0.20) cost adjustments. Among the states, only Nevada showed a strong positive relationship between minority enrollment and local revenues per pupil after cost adjustments, and Rhode Island and Connecticut demonstrated a strong negative relationship (Connecticut only after cost adjustments) (figure 2-4). Nearly half of the states (18 before cost adjustments and 19 after) showed no significant relationship between minority enrollment and local revenues per pupil.

In contrast, local revenues per pupil showed a relatively larger negative relationship with the percent of school-age children in poverty in a district. The correlation between percent school-age children in poverty and local revenues per pupil was -0.39 before cost adjustments and -0.38 after cost adjustments. No states showed a positive relationship between children in poverty and local revenues per pupil, either before or after cost adjustments. All but four states with sufficient data showed a negative relationship before cost adjustments. Minnesota, Nevada, Tennessee, and Utah showed no significant relationship before cost adjustments, and Maine, Nebraska, and South Carolina joined them after cost adjustments (figure 2-5).

Figure 2-4. Correlations between local revenues per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98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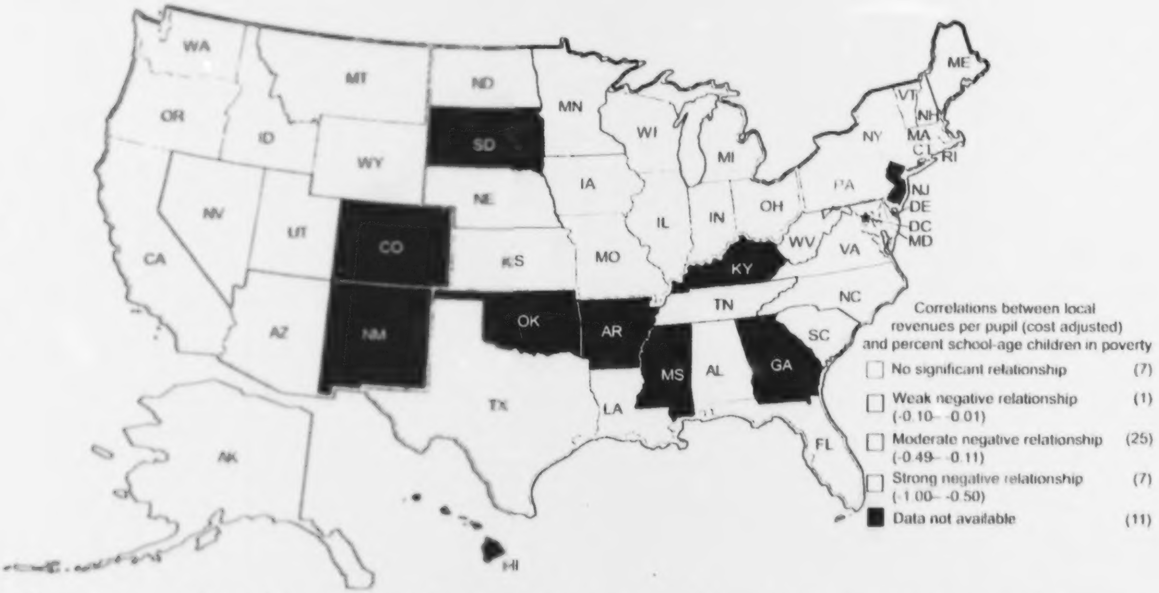
Correlations between local revenues per pupil (cost adjusted) and percent minority enrollment
☐ Strong positive relationship (0.50–1.00) (1)
☐ Moderate positive relationship (0.11–0.49) (2)
☐ No significant relationship (19)
☐ Weak negative relationship (-0.10– -0.01) (1)
☐ Moderate negative relationship (-0.49– -0.11) (15)
☐ Strong negative relationship (-1.00– -0.50) (2)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 2-5. Correlations between local revenues per pupil and percent school-age children in poverty (cost-adjusted dollars), by state: 1997–98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Correlations between local revenues per pupil (cost adjusted) and percent school-age children in poverty
☐ No significant relationship (7)
☐ Weak negative relationship (-0.10– -0.01) (1)
☐ Moderate negative relationship (-0.49– -0.11) (25)
☐ Strong negative relationship (-1.00– -0.50) (7)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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Local Property Tax Revenues

Local property tax revenues for public elementary and secondary education totaled $93.2 billion in 1997–98 (table 2-6). This was just over 63 percent of local revenues ($146.9 billion) in 1997–98.

Table 2-6. Local property tax revenues, cost-adjusted local property tax revenues, property tax revenues per pupil, and cost-adjusted property tax revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	Property tax revenues (in thousands)	Cost-adjusted property tax revenues (in thousands)	Property tax revenues per pupil	Cost-adjusted property tax revenues per pupil
All districts	$93,202,869	$91,791,089	$2,042	$2,018
Region				
Northeast	23,567,930	21,357,416	2,971	2,701
Midwest	28,369,662	28,639,339	2,671	2,710
South	24,221,398	25,726,765	1,470	1,562
West	17,043,879	16,067,569	1,607	1,523
District enrollment				
0–999	6,816,930	7,427,792	2,508	2,772
1,000–4,999	31,077,239	30,591,720	2,393	2,366
5,000–9,999	16,418,912	15,635,750	2,327	2,221
10,000 or more	38,889,788	38,135,828	1,700	1,669
Minority enrollment				
Less than 5 percent	26,042,386	26,588,580	2,306	2,356
5 percent–<20 percent	29,363,005	28,535,580	2,447	2,378
20 percent–<50 percent	22,847,253	22,522,040	1,780	1,755
50 percent or more	9,099,928	8,716,498	1,276	1,223
Data missing	5,850,297	5,428,391	—	—
School-age children in poverty				
Less than 5 percent	19,650,970	17,990,212	3,800	3,483
5 percent–<15 percent	32,498,259	32,194,973	2,099	2,079
15 percent–<25 percent	20,940,004	21,691,513	1,767	1,830
25 percent or more	14,263,339	14,486,001	1,326	1,347
Data missing	5,850,297	5,428,391	—	—
Median household income				
Less than $20,000	3,899,480	4,313,864	1,127	1,246
$20,000–<$25,000	13,371,106	14,367,813	1,592	1,711
$25,000–<$30,000	19,667,734	20,254,967	1,755	1,807
$30,000–<$35,000	14,928,631	14,817,475	1,974	1,959
$35,000 or more	35,485,621	32,608,579	2,809	2,583
Data missing	5,850,297	5,428,391	—	—
Median value owner-occupied housing				
Less than $40,000	5,377,023	6,042,651	1,470	1,651
$40,000–<$55,000	12,328,917	13,286,166	1,575	1,697
$55,000–<$85,000	29,579,751	30,243,002	2,047	2,094
$85,000 or more	40,066,881	36,790,880	2,313	2,124
Data missing	5,850,297	5,428,391	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Local Property Tax Revenues Per Pupil

Local property tax revenues per pupil in the United States averaged $2,042 in 1997–98 before cost adjustments (table 2-6). Local property tax revenues per pupil were highest in the Northeast ($2,971) and Midwest ($2,671) and lowest in the South ($1,470) and West ($1,607). Cost adjustments decreased the difference between the highest and lowest regions from $1,501 to $1,187 and the ratio of revenues per pupil from 2.0 to 1.8 to 1. (Revenues per pupil in the highest region were twice those in the lowest before cost adjustments, and 1.8 times as high after.) The Midwest ($2,710) replaced the Northeast ($2,701) as the region with the highest per-pupil revenues, and the West ($1,523) replaced the South ($1,562) as the region with lowest local property tax revenues per pupil.

Smaller districts tended to have higher local property tax revenues per pupil than larger districts, both before and after cost adjustments. Before cost adjustments, revenues per pupil averaged $2,508 in districts with fewer than 1,000 students, compared to $1,700 in districts with 10,000 or more students. After cost adjustments, smaller districts continued to have higher average local property tax revenues per pupil than larger districts. In addition, the difference between the smallest and the largest districts increased from $808 to $1,103 per pupil. Correlation analysis found a weak negative relationship between district enrollment and local property tax revenues per pupil, both before (-0.04) and after cost adjustments (-0.06) (tables A-1 and A-2).

Before cost adjustments, local property tax revenues per pupil showed a positive relationship with two measures of district wealth—median household income (+0.33) and owner-occupied housing value (+0.11) (table A-5). School districts with median household income at or above $35,000 had average revenues per pupil of $2,809, while districts with median household incomes below $20,000 had revenues per pupil of $1,127. Similarly, districts with median housing values at or above $85,000 had average local property tax revenues of $2,313 per pupil, while districts with median housing values below $40,000 had revenues per pupil of $1,470.

After cost adjustments, the differences decreased. Local property tax adjusted revenues per pupil became higher in districts with the lowest median household incomes ($1,246 per pupil), and lower in districts with the highest incomes ($2,583). Adjustments also raised property tax revenues per pupil in districts with the lowest median housing values ($1,651) and lowered them in districts with the highest housing values ($2,124). Correlation measures were weakened by cost adjustments. The correlation between cost-adjusted local property tax revenues per pupil and median household income was +0.26 and median value owner-occupied housing was +0.03 (table A-6).

Local property tax revenues per pupil showed a negative relationship with percent minority enrollment both before (-0.21) and after (-0.24) cost adjustments. Before cost adjustments, property tax revenues per pupil ranged from $1,276, on average, in districts with 50 percent or higher minority enrollment to $2,306 in districts with less than 5 percent minority. Cost adjustments increased the range, from $1,223 in high-minority districts to $2,356 in low-minority districts.

Local property tax revenues per pupil were also negatively correlated with district poverty, both before (-0.28) and after (-0.27) cost adjustments. Revenues per pupil were lowest in the highest-poverty districts and highest in the lowest-poverty districts—$1,326 and $3,800, respectively, before cost adjustments, and $1,347 and $3,483 respectively, after cost adjustments.

Student Fees Revenues

Student fees for public elementary and secondary education totaled $6.0 billion in 1997–98 (table 2-7). This was just over 4 percent of local revenues ($146.9 billion) in 1997–98.

Student Fees Per Pupil

Student fees per pupil in the United States averaged $132 in 1997–98 before cost adjustments (table 2-7). Student fees per pupil were highest in the Midwest ($166) and lowest in the West ($99). At $134,

Table 2-7. Student fees, cost-adjusted student fees, student fees per pupil, and cost-adjusted student fees per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	Student fees (in thousands)	Cost-adjusted student fees (in thousands)	Student fees per pupil	Cost-adjusted student fees per pupil
All districts	$6,010,218	$6,083,363	$132	$134
Region				
Northeast	976,126	889,265	123	112
Midwest	1,768,182	1,825,225	166	173
South	2,214,216	2,370,688	134	144
West	1,051,694	998,186	99	95
District enrollment				
0–999	346,535	387,434	127	145
1,000–4,999	1,919,588	1,972,713	148	153
5,000–9,999	1,027,974	1,022,030	146	145
10,000 or more	2,716,121	2,701,186	119	118
Minority enrollment				
Less than 5 percent	1,819,282	1,888,712	161	167
5 percent–<20 percent	1,899,448	1,903,439	158	159
20 percent–<50 percent	1,545,331	1,560,138	120	122
50 percent or more	441,944	430,526	62	60
Data missing	304,213	300,548	—	—
School-age children in poverty				
Less than 5 percent	977,092	915,058	189	177
5 percent–<15 percent	2,456,000	2,477,967	159	160
15 percent–<25 percent	1,517,407	1,606,769	128	136
25 percent or more	755,506	783,022	70	73
Data missing	304,213	300,548	—	—
Median household income				
Less than $20,000	288,172	325,137	83	94
$20,000–<$25,000	960,350	1,047,272	114	125
$25,000–<$30,000	1,347,858	1,413,182	120	126
$30,000–<$35,000	998,459	1,008,757	132	133
$35,000 or more	2,111,166	1,988,468	167	157
data missing	304,213	300,548	—	—
Median value owner-occupied housing				
Less than $40,000	387,664	441,130	106	121
$40,000–<$55,000	987,772	1,080,899	126	138
$55,000–<$85,000	2,025,490	2,110,736	140	146
$85,000 or more	2,305,079	2,150,050	133	124
Data missing	304,213	300,548	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

student fees per pupil were higher in the South than in the Northeast ($123). The use of cost adjustments increased the range between the highest and lowest regions from $67 to $78 and the ratio of student fees revenues per pupil from 1.7 to 1.8 to 1. The Midwest ($173) remained the region with the highest per pupil revenues, and the West ($95) remained the region with lowest student fees per pupil.

Large districts tended to have the lowest student fees per pupil, both before and after cost adjustments. Before cost adjustments, revenues per pupil averaged $119 in districts with 10,000 or more students, compared to $127 in districts with less than 1,000 students and $148 in districts with between 1,000 and 5,000 students. After cost adjustments, the difference became greater. Cost-adjusted revenues ranged from $118 in the largest districts to $145 and $153 in districts with smaller enrollment. Correlation analysis found no significant relationship between district enrollment and student fees per pupil before cost adjustments and a weak negative relationship after cost adjustments (-0.02) (tables A-1 and A-2).

Before cost adjustments, student fees per pupil showed a positive relationship with median household income (+0.32) and a weak negative relationship with median value owner-occupied housing (-0.05) (table A-7). School districts with median household income at or above $35,000 had average revenues per pupil of $167, while districts with median household incomes below $20,000 had revenues per pupil of $83. Districts with median housing values at or above $85,000 had average student fees of $133 per pupil, while districts with median housing values below $40,000 had revenues per pupil of $106. Districts with median housing values between $55,000 and $85,000 had the highest student fees per pupil at $140.

After cost adjustments, the differences decreased. Adjusted student fees per pupil became higher in districts with the lowest median household incomes ($94), and lower in districts with the highest incomes ($157). Adjustments also raised student fees per pupil in districts with the lowest median housing values ($121) and lowered them in districts with the highest housing values ($124). As expected, correlation measures between household income and student fees per pupil (+0.21) were weakened by cost adjustments, while median value owner-occupied housing showed a stronger negative relationship (-0.16) with adjusted student fees per pupil in correlation analysis (table A-8).

Student fees per pupil showed a negative relationship with percent minority enrollment both before (-0.46) and after (-0.48) cost adjustments. Before cost adjustments, student fees per pupil ranged from $62 on average in districts with 50 percent or higher minority enrollments to $161 in districts with less than 5 percent minority. Cost adjustments increased the range, from $60 in high-minority districts to $167 in low-minority districts.

Student fees per pupil were also negatively correlated with district poverty, both before (-0.52) and after (-0.47) cost adjustments. Revenues per pupil were lowest in the highest-poverty districts and highest in the lowest-poverty districts—$70 and $189, respectively, before cost adjustments, and $73 and $177, respectively, after cost adjustments.

Variations in Student Fees Per Pupil

The restricted range ratio for unadjusted student fees per pupil ranged from 0.33 in Nevada to 14.19 in New Jersey (table 2-8).[7] The United States ratio was 10.60, with 4 states exceeding the national measure: Illinois, Michigan, New Jersey, and New York. After cost adjustments, the restricted range ratio ranged from 0.35 in Nevada to 15.28 in New Jersey (table 2-9).[8] The cost-adjusted United States ratio was 10.30, with Illinois, Michigan, New Jersey, and New York continuing to exceed the national measure.

The coefficient of variation for unadjusted student fees per pupil ranged from 0.13 in Nevada to 0.95 in Vermont. Nine states exceeded the national variation of 0.59: Alaska, California, Connecticut, Illinois, Montana, New Jersey, New York, Oregon, and Vermont. After cost adjustments, the coefficient of variation ranged from 0.13 in Nevada to 0.97 in Vermont. The cost-adjusted United States coefficient was 0.59, and the same nine states continued to exceed the national measure.

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[7] The range in ratios is only presented for states in which ratios could be calculated. It excludes three states, Connecticut, Montana, and Vermont, which have infinite restricted range ratios.

[8] See footnote seven above.

Table 2-8. Variation in student fees per pupil (unadjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	10.60	†	0.59	†	0.31	†	†	†
Alabama	2.42	19	0.45	27	0.25	29	25.00	2
Alaska	7.05	40	0.82	44	0.27	34	39.33	4
Arizona	7.73	41	0.53	33	0.28	36	36.67	4
Arkansas	2.42	19	0.36	13	0.19	14	15.33	2
California	6.26	39	0.62	41	0.32	43	41.00	4
Colorado	4.31	32	0.53	33	0.28	36	33.67	3
Connecticut	(2)	(2)	0.83	45	0.47	48	46.50	4
Delaware	0.68	2	0.27	5	0.12	2	3.00	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.12	4	0.25	3	0.13	3	3.33	1
Georgia	5.37	37	0.41	21	0.22	21	26.33	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	1.46	7	0.36	13	0.18	12	10.67	1
Illinois	11.26	44	0.77	43	0.40	46	44.33	4
Indiana	4.78	35	0.36	13	0.19	14	20.67	2
Iowa	1.64	11	0.25	3	0.14	5	6.33	1
Kansas	1.60	10	0.29	6	0.17	9	8.33	1
Kentucky	2.30	18	0.37	19	0.20	17	18.00	2
Louisiana	2.05	14	0.55	36	0.24	25	25.00	2
Maine	2.44	21	0.50	31	0.23	24	25.33	2
Maryland	3.27	27	0.31	8	0.16	6	13.67	2
Massachusetts	2.92	24	0.53	33	0.25	29	28.67	3
Michigan	11.33	45	0.59	39	0.32	43	42.33	4
Minnesota	5.06	36	0.55	36	0.27	34	35.33	3
Mississippi	5.72	38	0.43	23	0.24	25	28.67	3
Missouri	4.27	30	0.59	39	0.29	38	35.67	3
Montana	(2)	(2)	0.94	47	0.48	49	48.00	4
Nebraska	1.75	13	0.36	13	0.20	17	14.33	2
Nevada	0.33	1	0.13	1	0.05	1	1.00	1
New Hampshire	1.45	6	0.35	12	0.18	12	10.00	1
New Jersey	14.19	46	0.65	42	0.30	40	42.67	4
New Mexico	9.46	42	0.51	32	0.29	38	37.33	4
New York	10.73	43	0.88	46	0.45	47	45.33	4
North Carolina	1.59	9	0.33	11	0.16	6	8.67	1
North Dakota	3.23	26	0.36	13	0.20	17	18.67	2
Ohio	2.17	16	0.41	21	0.21	20	19.00	2
Oklahoma	4.48	34	0.49	29	0.25	29	30.67	3
Oregon	2.17	16	0.94	47	0.30	40	34.33	3
Pennsylvania	2.93	25	0.38	20	0.22	21	22.00	2
Rhode Island	4.16	29	0.44	26	0.24	25	26.67	3
South Carolina	1.73	12	0.36	13	0.19	14	13.00	2
South Dakota	2.16	15	0.31	8	0.17	9	10.67	1
Tennessee	2.84	23	0.49	29	0.25	29	27.00	3
Texas	4.30	31	0.47	28	0.26	33	30.67	3
Utah	0.91	3	0.23	2	0.13	3	2.67	1
Vermont	(2)	(2)	0.95	49	0.39	45	47.00	4
Virginia	1.54	8	0.29	6	0.16	6	6.67	1
Washington	2.81	22	0.43	23	0.22	21	22.00	2
West Virginia	4.47	33	0.57	38	0.31	42	37.67	4
Wisconsin	3.84	28	0.43	23	0.24	25	25.33	2
Wyoming	1.37	5	0.31	8	0.17	9	7.33	1

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for student fees per pupil in Connecticut, Montana, or Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 2-9. Variation in student fees per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	10.30	†	0.59	†	0.31	†	†	†
Alabama	2.64	21	0.43	24	0.24	25	23.33	2
Alaska	6.44	40	0.82	44	0.26	34	39.33	4
Arizona	6.84	41	0.52	34	0.27	36	37.00	4
Arkansas	2.24	18	0.36	16	0.19	15	16.33	2
California	6.01	39	0.62	41	0.32	44	41.33	4
Colorado	4.12	30	0.51	32	0.27	36	32.67	3
Connecticut	(2)	(2)	0.83	45	0.47	48	46.50	4
Delaware	0.71	2	0.29	7	0.13	2	3.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.08	4	0.25	3	0.13	2	3.00	1
Georgia	5.58	36	0.38	19	0.21	20	25.00	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	1.55	10	0.35	13	0.17	10	11.00	1
Illinois	11.83	45	0.75	43	0.40	46	44.67	4
Indiana	5.32	35	0.35	13	0.19	15	21.00	2
Iowa	1.78	13	0.25	3	0.14	5	7.00	1
Kansas	1.65	11	0.28	6	0.16	7	8.00	1
Kentucky	2.14	17	0.38	19	0.20	18	18.00	2
Louisiana	1.90	14	0.55	37	0.24	25	25.33	2
Maine	2.79	24	0.51	32	0.23	24	26.67	3
Maryland	3.37	28	0.31	8	0.16	7	14.33	2
Massachusetts	3.02	26	0.54	36	0.25	30	30.67	3
Michigan	11.38	44	0.56	39	0.30	41	41.33	4
Minnesota	5.95	38	0.52	34	0.25	30	34.00	3
Mississippi	5.78	37	0.43	24	0.24	25	28.67	3
Missouri	3.29	27	0.55	37	0.27	36	33.33	3
Montana	(2)	(2)	0.95	48	0.48	49	48.50	4
Nebraska	1.73	12	0.38	19	0.21	20	17.00	2
Nevada	0.35	1	0.13	1	0.04	1	1.00	1
New Hampshire	1.41	7	0.36	16	0.18	12	11.67	1
New Jersey	15.28	46	0.68	42	0.31	42	43.33	4
New Mexico	9.04	42	0.50	31	0.27	36	36.33	4
New York	11.12	43	0.86	46	0.45	47	45.33	4
North Carolina	1.51	8	0.32	10	0.16	7	8.33	1
North Dakota	2.86	25	0.35	13	0.19	15	17.67	2
Ohio	2.32	19	0.40	22	0.20	18	19.67	2
Oklahoma	4.46	33	0.48	29	0.24	25	29.00	3
Oregon	1.96	15	0.94	47	0.29	40	34.00	3
Pennsylvania	2.78	23	0.37	18	0.21	20	20.33	2
Rhode Island	4.58	34	0.45	27	0.25	30	30.33	3
South Carolina	1.54	9	0.34	12	0.18	12	11.00	1
South Dakota	2.04	16	0.32	10	0.18	12	12.67	2
Tennessee	2.73	22	0.49	30	0.25	30	27.33	3
Texas	3.85	29	0.47	28	0.26	34	30.33	3
Utah	0.90	3	0.23	2	0.13	2	2.33	1
Vermont	(2)	(2)	0.97	49	0.38	45	47.00	4
Virginia	1.32	5	0.27	5	0.15	6	5.33	1
Washington	2.47	20	0.40	22	0.21	20	20.67	2
West Virginia	4.41	32	0.56	39	0.31	42	37.67	4
Wisconsin	4.32	31	0.44	26	0.24	25	27.33	3
Wyoming	1.40	6	0.31	8	0.17	10	8.00	1

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for student fees per pupil in Connecticut, Montana, or Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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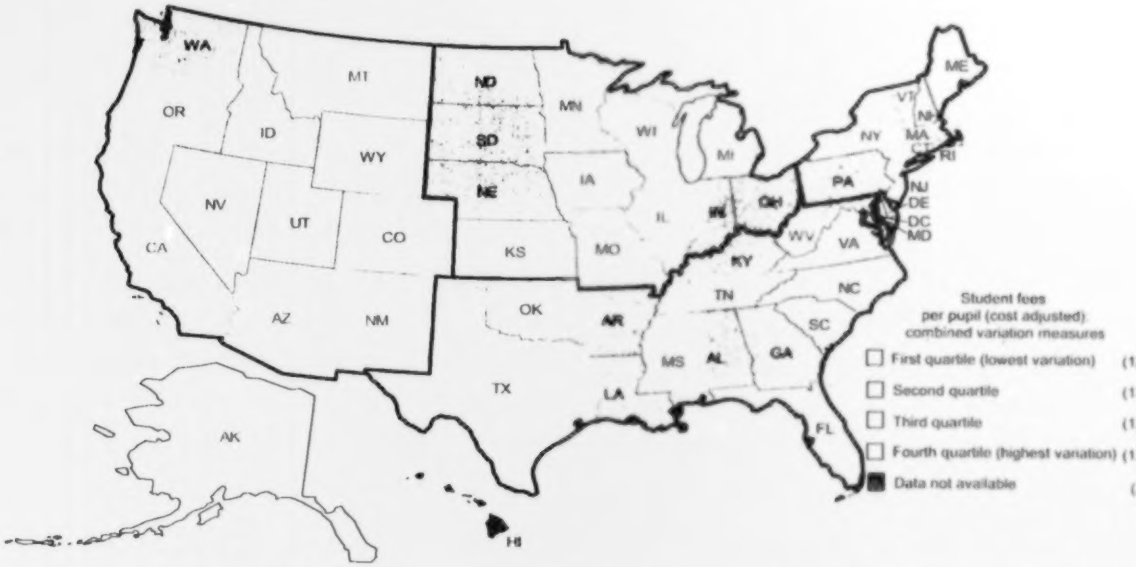
Before cost adjustments, the Gini coefficient for student fees per pupil ranged from 0.05 in Nevada to 0.48 in Montana. The unadjusted coefficient for the United States was 0.31, with seven states exceeding the national measure: California, Connecticut, Illinois, Michigan, Montana, New York, and Vermont. After cost adjustments, the coefficient ranged from 0.04 in Nevada to 0.48 in Montana. The national Gini coefficient was again 0.31 after cost adjustments. Michigan no longer had an adjusted variation greater than the national measure.

In a composite of the three variation measures, states in the South had relatively low variation, while states in the Northeast had higher variation in cost-adjusted student fees per pupil (figure 2-6). After cost adjustments, 78 percent of states in the Northeast were in the bottom two quartiles when ranked with states across the country (table 2-10). In contrast, 69 percent of states in the South were in the two quartiles with lowest variation.

Figure 2-6. Synthesis of variation measures of student fees per pupil (cost-adjusted dollars), by state: 1997–98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Student fees per pupil (cost adjusted): combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (13)
☐ Third quartile (12)
☐ Fourth quartile (highest variation) (12)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 2-10. Variation in student fees per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted student fees per pupil		
Northeast	33	67
Midwest	67	33
South	63	38
West	42	58
Cost-adjusted student fees per pupil		
Northeast	22	78
Midwest	58	42
South	69	31
West	42	58

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Relationship between Student Fees Per Pupil and Selected District Fiscal and Demographic Characteristics

For the majority of the states, student fees per pupil showed a positive relationship with two measures of district fiscal capacity—median value owner-occupied housing and median household income—both before and after cost adjustments (tables A-7 and A-8). For the United States as a whole, the relationship between median household income and student fees per pupil was also positive (+0.32 unadjusted, +0.21 adjusted). However, correlation analysis found a weak negative relationship between student fees per pupil and owner-occupied housing value before cost adjustments (-0.05), and a moderate negative relationship nationally after cost adjustments (-0.16). Before cost adjustments, 10 states—Alaska, Connecticut, Delaware, Florida, Maine, Montana, Nevada, New Hampshire, New York, and Vermont—showed no significant relationship between student fees per pupil and owner-occupied housing value (table 2-11). The remaining 30 states with sufficient data showed a positive relationship between these two variables, with 14 of those states showing a strong positive relationship. After cost adjustments, only Arizona, Maryland, Michigan, Rhode Island, and Washington showed a strong positive relationship. Tennessee joined those states with no significant relationship, and New York showed a moderate negative relationship.

Similarly, 33 states demonstrated a positive relationship between unadjusted student fees per pupil and median household income. No states demonstrated a negative relationship, and 7 states—Delaware, Maine, Massachusetts, Nevada, New Hampshire, Tennessee, and Vermont—showed no significant relationship between revenues per pupil and income. After cost adjustments, the same 7 states showed no significant relationship. Whereas there were 19 states with a strong positive relationship before cost adjustments, after cost adjustments there were 13—Indiana, Kansas, New York, Pennsylvania, Virginia, and Wyoming all decreased to a moderate positive relationship after cost adjustments.

For the United States as a whole, a negative relationship was found between student fees per pupil and percent minority enrollment, both before (-0.46) and after (-0.48) cost adjustments. Before cost adjustments, no significant relationship was found in Delaware, Florida, Maine, Maryland, Massachusetts, Vermont, or West Virginia (table 2-11). Eleven states showed a strong negative relationship, while 22 states showed a moderate negative relationship between percent minority enrollment and unadjusted student fees per pupil. After cost adjustments were applied, the same seven states showed no significant relationship. Twelve states showed a strong, negative relationship between adjusted student fees per pupil and percent minority enrollment, and 21 states showed a moderate negative relationship between these two variables.

Percent school-age children in poverty was also negatively correlated with student fees per pupil, both before (-0.52) and after (-0.47) cost adjustments and in nearly all the states. No states showed a positive correlation between the variables either before or after cost adjustments. Before cost adjustments, 7 states did not show a negative relationship: in Alaska, Delaware, Maine, Massachusetts, Nevada, New Hampshire, and Vermont there was no significant relationship between revenues per pupil and school-age children in poverty. After cost adjustments, the same seven states continued to show no relationship.

Table 2-11. Correlations between student fees per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Alaska, Arizona, California, Connecticut, Idaho, Iowa, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, *Ohio, Oregon, Tennessee, Texas, Utah, Virginia,* Washington, Wyoming, *US overall*	Alaska, Arizona, California, Connecticut, Idaho, Iowa, Louisiana, Minnesota, Missouri, Montana, Nevada,[1] New Hampshire, North Carolina, North Dakota, Ohio, *Oregon, Tennessee, Utah, Virginia, Washington,* Wyoming, *US overall*
Strong negative relationship	Alabama, Illinois, Indiana, Kansas, Michigan, Nevada, New York, Pennsylvania, Rhode Island, South Carolina, Wisconsin	Alabama, Illinois, Indiana, Kansas, Michigan, Nebraska,[1] New York, Pennsylvania, Rhode Island, South Carolina, Texas,[1] Wisconsin
No significant relationship	Delaware, Florida, Maine, Maryland, Massachusetts, Vermont, West Virginia	Delaware, Florida, Maine, Maryland, Massachusetts, Vermont, West Virginia
School-age children in poverty		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Connecticut, Florida, Idaho, Iowa, Missouri, Montana, North Dakota, Oregon, Tennessee, West Virginia	California,[1] Connecticut, Florida, Idaho, Iowa, Missouri, Montana, Nebraska,[1] North Carolina,[1] North Dakota, Oregon, Tennessee, Virginia,[1] West Virginia, *US overall*[2]
Strong negative relationship	Alabama, Arizona, California, Illinois, Indiana, Kansas, Louisiana, Maryland, Michigan, Minnesota, Nebraska, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Virginia, Washington, Wisconsin, Wyoming, *US overall*	Alabama, Arizona, Illinois, Indiana, Kansas, Louisiana, Maryland, Michigan, Minnesota, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Washington, Wisconsin, Wyoming
No significant relationship	Alaska, Delaware, Maine, Massachusetts, Nevada, New Hampshire, Vermont	Alaska, Delaware, Maine, Massachusetts, Nevada, New Hampshire, Vermont
Median household income		
Strong positive relationship	Alabama, Arizona, Indiana, Kansas, Louisiana, Maryland, Michigan, Minnesota, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Virginia, Washington, West Virginia, Wyoming	Alabama, Arizona, Louisiana, Maryland, Michigan, Minnesota, Ohio, Rhode Island, South Carolina, Texas, Utah, Washington, West Virginia
Moderate positive relationship	Alaska, California, Connecticut, Florida, Idaho, Illinois, Iowa, Missouri, Montana, Nebraska, North Carolina, North Dakota, Oregon, Wisconsin, *US overall*	Alaska, California, Connecticut, Florida, Idaho, Illinois, Indiana,[1] Iowa, Kansas,[1] Missouri, Montana, Nebraska, New York,[1] North Carolina, North Dakota, Oregon, Pennsylvania,[1] Virginia,[1] Wisconsin, Wyoming,[1] *US overall*
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	Delaware, Maine, Massachusetts, Nevada, New Hampshire, Tennessee, Vermont	Delaware, Maine, Massachusetts, Nevada, New Hampshire, Tennessee, Vermont
Median Value Owner-Occupied Housing		
Strong positive relationship	Arizona, Indiana, Kansas, Maryland, Michigan, Minnesota, Ohio, Pennsylvania, Rhode Island, Texas, Utah, Virginia, Washington, West Virginia	Arizona, Maryland, Michigan, Rhode Island, Washington
Moderate positive relationship	Alabama, California, Idaho, Illinois, Iowa, Louisiana, Massachusetts, Missouri, Nebraska, North Carolina, North Dakota, Oregon, South Carolina, Tennessee, Wisconsin, Wyoming	Alabama, California, Idaho, Illinois, Indiana,[1] Iowa, Kansas,[1] Louisiana, Massachusetts, Minnesota,[1] Missouri, North Carolina, North Dakota, Ohio,[1] Oregon, Pennsylvania,[1] South Carolina, Texas,[1] Utah,[1] Virginia,[1] West Virginia,[1] Wisconsin, Wyoming
Weak positive relationship	[none]	Nebraska[1]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	New York,[1] *US overall*[2]
Strong negative relationship	[none]	[none]
No significant relationship	Alaska, Connecticut, Delaware, Florida, Maine, Montana, Nevada, New Hampshire, New York, Vermont, *US overall*	Alaska, Connecticut, Delaware, Florida, Maine, Montana, Nevada, New Hampshire, Tennessee,[1] Vermont

Table 2-11. Correlations between student fees per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Arkansas, Colorado, Georgia, Minnesota, Mississippi, Missouri, Nebraska, North Dakota, Oklahoma, Vermont, Washington, West Virginia	Colorado, Mississippi, Vermont, West Virginia
Weak positive relationship	Michigan	Nebraska,[1] Oklahoma[1]
Weak negative relationship	New Jersey	*US overall*[1]
Moderate negative relationship	Indiana, Rhode Island	Indiana, Iowa,[1] New Jersey,[1] Pennsylvania,[1] Rhode Island, Wisconsin[1]
Strong negative relationship	Delaware	Delaware
No significant relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, Arkansas,[1] California, Connecticut, Florida, Georgia,[1] Idaho, Illinois, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan,[1] Minnesota,[1] Missouri,[1] Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota,[1] Ohio, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington,[1] Wyoming

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Local Revenues as a Percent of Total Revenues

Local revenues were just under 46 percent of total district revenues for public elementary and secondary education in the United States in 1997–98. Local revenues were the second-largest source of funds for public education, following state revenues (48 percent) and before federal revenues (6 percent).[9]

Variations in Local Revenues as a Percent of Total Revenues

The restricted range ratio was 3.80 for percent local revenues across the United States (table 2-12). Among the states, the ratio ranged from a low of 0.34 in New Hampshire to a high of 7.04 in Alaska. Four states—Alaska, Massachusetts, New Jersey, and Texas—had a higher restricted range ratio than the national measure.

The coefficient of variation ranged from 0.09 in New Hampshire to 0.54 in Wyoming. Only Wyoming had greater variation than the national level of 0.44.

The smallest Gini coefficient was found in two states: Nevada and New Hampshire both had a Gini coefficient of 0.05. Wyoming again had the highest variation at 0.29. Again, only Wyoming exceeded the national measure of 0.25.

Relationship between Percent Local Revenues and Selected District Fiscal and Demographic Characteristics

For the United States as a whole and for nearly all states with sufficient data, percent local revenues showed a positive relationship with both measures of district fiscal capacity—median value owner-occupied housing (+0.27) and median household income (+0.52) (table A-9). All 40 states with sufficient data except Nebraska showed a positive relationship between percent local revenues and median value owner-occupied housing, with 33 states demonstrating a strong positive correlation (table 2-13).

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[9] Because percent local revenues is a proportion and not a dollar amount, cost adjustments are not used in this section.

Table 2-12. Variation in percent local revenues, by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	3.80	†	0.44	†	0.25	†	†	†
Alabama	1.38	13	0.32	31	0.17	22	22.00	2
Alaska	7.04	49	0.37	37	0.18	32	39.33	4
Arizona	3.05	43	0.34	34	0.19	36	37.67	4
Arkansas	2.15	34	0.37	37	0.20	38	36.33	3
California	2.82	41	0.43	44	0.23	42	42.33	4
Colorado	1.73	21	0.28	19	0.16	20	20.00	2
Connecticut	3.49	45	0.40	40	0.23	42	42.33	4
Delaware	2.13	32	0.32	31	0.17	22	28.33	3
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.27	11	0.27	15	0.15	13	13.00	2
Georgia	2.05	29	0.31	28	0.18	32	29.67	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	2.09	30	0.40	40	0.21	40	36.67	3
Illinois	1.85	25	0.31	28	0.17	22	25.00	3
Indiana	1.11	6	0.21	4	0.12	7	5.67	1
Iowa	0.73	2	0.16	3	0.09	3	2.67	1
Kansas	2.61	39	0.42	43	0.21	40	40.67	4
Kentucky	3.22	44	0.41	42	0.23	42	42.67	4
Louisiana	1.98	27	0.27	15	0.15	13	18.33	2
Maine	1.71	20	0.30	23	0.17	22	21.67	2
Maryland	1.78	23	0.26	11	0.14	10	14.67	2
Massachusetts	5.79	48	0.43	44	0.24	45	45.67	4
Michigan	2.76	40	0.44	47	0.24	45	44.00	4
Minnesota	2.14	33	0.35	36	0.18	32	33.67	3
Mississippi	1.56	19	0.28	19	0.16	20	19.33	2
Missouri	1.24	7	0.26	11	0.15	13	10.33	1
Montana	1.55	18	0.23	7	0.12	7	10.67	1
Nebraska	1.26	9	0.21	4	0.11	5	6.00	1
Nevada	0.78	4	0.15	2	0.05	1	2.33	1
New Hampshire	0.34	1	0.09	1	0.05	1	1.00	1
New Jersey	4.76	46	0.44	47	0.25	47	46.67	4
New Mexico	2.10	31	0.30	23	0.17	22	25.33	3
New York	2.23	36	0.31	28	0.17	22	28.67	3
North Carolina	1.43	14	0.27	15	0.15	13	14.00	2
North Dakota	0.77	3	0.21	4	0.10	4	3.67	1
Ohio	1.86	26	0.30	23	0.17	22	23.67	3
Oklahoma	2.04	28	0.34	34	0.19	36	32.67	3
Oregon	1.48	15	0.28	19	0.15	13	15.67	2
Pennsylvania	1.53	17	0.29	22	0.17	22	20.33	2
Rhode Island	2.18	35	0.33	33	0.18	32	33.33	3
South Carolina	1.27	11	0.24	8	0.13	9	9.33	1
South Dakota	2.46	38	0.27	15	0.14	10	21.00	2
Tennessee	1.49	16	0.26	11	0.15	13	13.33	2
Texas	4.79	47	0.43	44	0.25	47	46.00	4
Utah	0.96	5	0.24	8	0.11	5	6.00	1
Vermont	1.24	7	0.26	11	0.15	13	10.33	1
Virginia	1.26	9	0.24	8	0.14	10	9.00	1
Washington	1.73	21	0.30	23	0.17	22	22.00	2
West Virginia	1.84	24	0.30	23	0.17	22	23.00	3
Wisconsin	2.23	36	0.37	37	0.20	38	37.00	3
Wyoming	2.97	42	0.54	49	0.29	49	46.67	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 2-13. Correlations between percent local revenues and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States
Minority enrollment	
Strong positive relationship	Nevada
Moderate positive relationship	Maine, Tennessee, West Virginia
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	Alabama, Arizona, California, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Missouri, Nebraska, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Virginia, Washington, Wisconsin, *US overall*
Strong negative relationship	Alaska, Connecticut, Maryland, Montana, North Dakota, Rhode Island
No significant relationship	Delaware, Louisiana, Minnesota, New Hampshire, Oregon, Texas, Utah, Vermont, Wyoming
School-age children in poverty	
Strong positive relationship	[none]
Moderate positive relationship	[none]
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	Florida, Idaho, Kansas, Maine, Michigan, Minnesota, Nebraska, New Hampshire, Oregon, South Carolina, Vermont, *US overall*
Strong negative relationship	Alabama, Alaska, Arizona, California, Connecticut, Delaware, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Missouri, Montana, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, Washington, West Virginia, Wisconsin, Wyoming
No significant relationship	Nevada, Tennessee, Utah
Median household income	
Strong positive relationship	Alabama, Alaska, California, Connecticut, Delaware, Florida, Illinois, Indiana, Kansas, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*
Moderate positive relationship	Arizona, Idaho, Iowa, Maine, Michigan, Montana, North Dakota, Oregon, South Carolina, Tennessee, Vermont
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	[none]
Strong negative relationship	[none]
No significant relationship	Nebraska, Nevada, Utah
Median value owner-occupied housing	
Strong positive relationship	Alabama, Alaska, Arizona, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Hampshire, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin
Moderate positive relationship	California, Iowa, Montana, North Dakota, Utah, Wyoming, *US overall*
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	[none]
Strong negative relationship	[none]
No significant relationship	Nebraska

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Nebraska demonstrated no significant relationship. Only three states did not show a positive relationship between percent local revenues and median household income: Nebraska, Nevada, and Utah showed no significant relationship.

A moderate negative relationship (-0.24) was found between percent local revenues and percent minority enrollment. Twenty-seven of the 40 states with sufficient data showed a negative relationship. Nine states showed no significant relationship, while Maine, Nevada, Tennessee, and West Virginia showed a positive relationship between percent local revenues and percent minority enrollment.

The relationship between percent local revenues and percent school-age children in poverty (-0.48) was relatively larger than that between percent local revenues and percent minority enrollment, both at the national level and among the states. Twenty-six states with sufficient data showed a strong negative relationship between percent poverty and percent local revenues, while 11 states showed a moderate

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negative relationship. No states demonstrated a positive relationship between percent poverty and percent local revenues. Three states—Nevada, Tennessee, and Utah—demonstrated no significant relationship.

Chapter 3: State Revenues

State Revenues

State revenues for public elementary and secondary education totaled $154.6 billion in 1997–98 (table 3-1). This was just over 48 percent of total district revenues ($321.6 billion) in 1997–98. Nearly 72 percent of state revenues came from general formula assistance ($111.1 billion) (table 3-6), with just over 8 percent from instructional program revenues ($12.7 billion) (table 3-11), and 20 percent from other state sources.

State Revenues Per Pupil

State revenues per pupil in the United States averaged $3,388 in 1997–98 before cost adjustments (table 3-1). State revenues per pupil were highest in the West ($3,697) and lowest in the South ($3,105). At $3,511 per pupil, state revenues in the Northeast were higher than in the Midwest ($3,424). The use of cost adjustments decreased the range between the highest and lowest regions from $592 to $339 and the ratio of revenues per pupil from 1.2 to 1.1 to 1. The Midwest ($3,540) replaced the West ($3,515) as the region with the highest per pupil revenues, and the Northeast ($3,201) replaced the South ($3,367) as the region with the lowest state revenues per pupil.

Smaller districts had higher state revenues per pupil, both before and after cost adjustments. Before cost adjustments, state revenues per pupil averaged $3,623 in districts with fewer than 1,000 students, compared to $3,422 in districts with 10,000 or more students. After cost adjustments, smaller districts continued to have higher average state revenues per pupil than larger districts. In addition, the difference between the smallest and the largest districts increased from $201 to $759 per pupil. However, correlation analysis showed a weak negative relationship between district enrollment and state revenues per pupil, both before (-0.02) and after (-0.05) cost adjustments (tables A-1 and A-2).

Before cost adjustments, state revenues per pupil showed small but statistically significant negative relationships with two measures of district wealth—median household income (-0.31) and median value owner-occupied housing (-0.12) (table A-10). School districts with median household income at or above $35,000 had average state revenues per pupil of $2,894, while districts with median household incomes below $20,000 had revenues per pupil of $4,086. Similarly, districts with median housing values at or above $85,000 had average state revenues of $3,262 per pupil, while districts with median housing values below $40,000 had state revenues per pupil of $4,099.

After cost adjustments, the differences increased. State adjusted revenues per pupil became higher in districts with the lowest median household incomes ($4,473 per pupil), and lower in districts with the highest incomes ($2,695). Adjustments also raised state revenues per pupil in districts with the lowest median housing values ($4,544) and lowered them in districts with the highest housing values ($2,985). Correlation measures were also strengthened by cost adjustments, indicating that state revenues were

Table 3-1. State revenues, cost-adjusted state revenues, state revenues per pupil, and cost-adjusted state revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	State revenues (in thousands)	Cost-adjusted state revenues (in thousands)	State revenues per pupil	Cost-adjusted state revenues per pupil
All districts	$154,597,201	$155,268,077	$3,388	$3,413
Region				
Northeast	27,844,617	25,310,107	3,511	3,201
Midwest	36,366,891	37,407,502	3,424	3,540
South	51,165,529	55,472,789	3,105	3,367
West	39,220,164	37,077,679	3,697	3,515
District enrollment				
0–999	9,850,067	10,951,464	3,623	4,087
1,000–4,999	43,060,895	44,908,327	3,316	3,474
5,000–9,999	23,413,306	23,362,133	3,318	3,318
10,000 or more	78,272,933	76,046,153	3,422	3,328
Minority enrollment				
Less than 5 percent	37,885,902	39,652,992	3,355	3,513
5 percent–<20 percent	37,043,006	37,470,691	3,087	3,122
20 percent–<50 percent	43,739,213	43,765,392	3,407	3,409
50 percent or more	27,818,381	26,226,735	3,902	3,679
Data missing	8,110,699	8,152,267	—	—
School-age children in poverty				
Less than 5 percent	12,856,878	12,042,565	2,486	2,331
5 percent–<15 percent	49,479,597	49,526,294	3,195	3,198
15 percent–<25 percent	42,216,898	43,832,920	3,563	3,699
25 percent or more	41,933,129	41,714,031	3,899	3,879
Data missing	8,110,699	8,152,267	—	—
Median household income				
Less than $20,000	14,143,070	15,481,330	4,086	4,473
$20,000–<$25,000	30,670,915	32,703,691	3,653	3,895
$25,000–<$30,000	39,173,630	39,419,807	3,495	3,517
$30,000–<$35,000	25,944,849	25,481,431	3,431	3,369
$35,000 or more	36,554,038	34,029,552	2,894	2,695
Data missing	8,110,699	8,152,267	—	—
Median value owner-occupied housing				
Less than $40,000	14,998,868	16,624,458	4,099	4,544
$40,000–<$55,000	28,429,175	30,677,433	3,631	3,919
$55,000–<$85,000	46,551,988	48,095,109	3,222	3,330
$85,000 or more	56,506,471	51,718,809	3,262	2,985
Data missing	8,110,699	8,152,267	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

higher in districts with a lower economic base, both before and after cost adjustments. The correlation between adjusted state revenues per pupil and median household income was -0.44 and median value owner-occupied housing was -0.30 (table A-11).

State revenues per pupil showed a small positive relationship with percent minority enrollment before cost adjustments. Before adjustments, school districts with the highest minority enrollments had higher state revenues per pupil than districts with the lowest minority enrollments, $3,902 and $3,355, respectively. However, districts with between 5 and 20 percent minority enrollment had the lowest state revenues per pupil ($3,087). After adjustments, the 5–20 percent bracket still had the lowest state revenues per pupil, and the range between the lowest- and highest-minority districts was greatly reduced—from $547 to $166. Correlation figures also indicated a small positive relationship both before cost adjustments (+0.20), and after cost adjustments (+0.10).

State revenues per pupil were positively correlated with district poverty, both before (+0.32) and after (+0.35) cost adjustments. State revenues per pupil were lowest in the lowest-poverty districts and highest in the highest poverty districts both before and after cost adjustments—$2,486 and $3,899, respectively, before cost adjustments, and $2,331 and $3,879 respectively, after cost adjustments.

Variations in State Revenues Per Pupil

Restricted Range Ratio

The restricted range ratio for unadjusted state revenues per pupil across the United States was 3.37 (table 3-2). This means that state revenues in the district at the 95th percentile were 3.37 times higher than state revenues in the district at the 5th percentile. Variation in the states ranged from 0.19 in Alabama to 9.85 in Connecticut and a high of 19.42 in Vermont. Six states (Connecticut, Massachusetts, New Hampshire, New Jersey, Vermont, and Wyoming) had a restricted range ratio higher than that for the United States.

When cost adjustments were applied, the restricted range ratio for state revenues per pupil across the United States rose to 3.79 (table 3-3). Eight states exceeded the national variation after cost adjustments: Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Texas, Vermont, and Wyoming. Cost adjustments increased the range between the lowest-variation and highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.28 in Alabama to 10.34 in Connecticut and New Hampshire, and a high of 20.44 in Vermont.

Coefficient of Variation

The coefficient of variation for unadjusted state revenues per pupil across the United States was 0.39 (table 3-2). This means that approximately two-thirds of the districts nationally have state revenues per pupil between $2,067 and $4,709, a range that is from 39 percent below the mean to 39 percent above the mean. Variation in the states ranged from 0.05 in Alabama to 0.84 in Vermont. Nine states had a coefficient of variation higher than that for the United States.

When state revenues were adjusted for cost-of-education differences, the coefficient of variation for state revenues per pupil across the United States remained 0.39 (table 3-3). Ten states exceeded the national variation after cost adjustments: New York joined Connecticut, Illinois, Massachusetts, Missouri, New Hampshire, New Jersey, Texas, Vermont, and Wyoming. Cost adjustments decreased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.09 in Alabama to 0.87 in Vermont.

Gini Coefficient

The Gini coefficient for unadjusted state revenues per pupil across the United States was 0.21 (table 3-2). A Gini coefficient of 0 means revenues are distributed equally; higher values such as 0.21 imply revenues are more concentrated among a smaller share of students. Variation in the states ranged from 0.03 in Alabama to 0.46 in Vermont. Nine states (Connecticut, Illinois, Massachusetts, Missouri, New Hampshire, New Jersey, Texas, Vermont, and Wyoming) had a Gini coefficient higher than that for the United States.

Table 3-2. Variation in state revenues per pupil (unadjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	3.37	†	0.39	†	0.21	†	†	†
Alabama	0.19	1	0.05	1	0.03	1	1.00	1
Alaska	1.18	23	0.33	35	0.14	27	28.33	3
Arizona	1.90	33	0.28	29	0.14	27	29.67	3
Arkansas	0.55	15	0.15	12	0.08	13	13.33	2
California	1.36	28	0.23	23	0.13	24	25.00	2
Colorado	2.27	38	0.29	30	0.16	32	33.33	3
Connecticut	9.85	48	0.64	46	0.36	46	46.67	4
Delaware	0.47	12	0.12	6	0.06	6	8.00	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.75	21	0.21	21	0.11	22	21.33	2
Georgia	0.39	7	0.12	6	0.06	6	6.33	1
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.54	14	0.15	12	0.08	13	13.00	2
Illinois	2.88	40	0.40	41	0.22	41	40.67	4
Indiana	0.72	19	0.15	12	0.08	13	14.67	2
Iowa	0.40	9	0.13	10	0.06	6	8.33	1
Kansas	1.20	24	0.24	24	0.13	24	24.00	2
Kentucky	0.61	17	0.16	16	0.09	18	17.00	2
Louisiana	0.39	7	0.12	6	0.07	10	7.67	1
Maine	2.77	39	0.32	34	0.17	34	35.67	3
Maryland	1.21	25	0.26	27	0.14	27	26.33	3
Massachusetts	4.75	43	0.54	45	0.30	45	44.33	4
Michigan	0.51	13	0.14	11	0.08	13	12.33	1
Minnesota	1.59	29	0.25	26	0.13	24	26.33	3
Mississippi	0.28	2	0.09	2	0.05	2	2.00	1
Missouri	2.26	37	0.42	42	0.22	41	40.00	4
Montana	0.87	22	0.24	24	0.11	22	22.67	2
Nebraska	2.17	35	0.29	30	0.16	32	32.33	3
Nevada	1.33	27	0.37	39	0.14	27	31.00	3
New Hampshire	9.13	47	0.72	48	0.38	47	47.33	4
New Jersey	7.46	45	0.71	47	0.39	48	46.67	4
New Mexico	1.22	26	0.20	20	0.09	18	21.33	2
New York	3.27	42	0.35	37	0.19	38	39.00	4
North Carolina	0.32	4	0.11	3	0.05	2	3.00	1
North Dakota	0.40	9	0.21	21	0.07	10	13.33	2
Ohio	2.18	36	0.35	37	0.19	38	37.00	4
Oklahoma	0.72	19	0.16	16	0.09	18	17.67	2
Oregon	0.56	16	0.15	12	0.07	10	12.67	1
Pennsylvania	1.88	32	0.31	32	0.18	36	33.33	3
Rhode Island	3.19	41	0.37	39	0.20	40	40.00	4
South Carolina	0.38	6	0.11	3	0.06	6	5.00	1
South Dakota	1.69	30	0.33	35	0.18	36	33.67	3
Tennessee	0.67	18	0.17	18	0.09	18	18.00	2
Texas	6.65	44	0.46	43	0.26	43	43.33	4
Utah	0.33	5	0.12	6	0.05	2	4.33	1
Vermont	19.42	49	0.84	49	0.46	49	49.00	4
Virginia	2.13	34	0.31	32	0.17	34	33.33	3
Washington	0.29	3	0.11	3	0.05	2	2.67	1
West Virginia	0.44	11	0.18	19	0.08	13	14.33	2
Wisconsin	1.78	31	0.26	27	0.14	27	28.33	3
Wyoming	7.51	46	0.53	44	0.28	44	44.67	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 3-3. Variation in state revenues per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	3.79	†	0.39	†	0.21	†	†	†
Alabama	0.28	1	0.09	1	0.05	1	1.00	1
Alaska	1.24	24	0.34	32	0.14	24	26.67	3
Arizona	2.24	33	0.31	29	0.15	28	30.00	3
Arkansas	0.64	13	0.17	12	0.09	12	12.33	2
California	1.51	27	0.25	23	0.14	24	24.67	2
Colorado	2.50	36	0.33	30	0.17	32	32.67	3
Connecticut	10.34	47	0.64	46	0.36	46	46.33	4
Delaware	0.58	11	0.15	6	0.07	5	7.33	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.95	20	0.23	20	0.12	22	20.67	2
Georgia	0.68	17	0.19	14	0.10	17	16.00	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.66	15	0.18	13	0.09	12	13.33	2
Illinois	3.95	42	0.46	42	0.25	42	42.00	4
Indiana	0.65	14	0.15	6	0.09	12	10.67	1
Iowa	0.51	8	0.15	6	0.07	5	6.33	1
Kansas	1.70	28	0.29	27	0.16	31	28.67	3
Kentucky	0.78	18	0.20	17	0.11	19	18.00	2
Louisiana	0.52	10	0.15	6	0.08	10	8.67	1
Maine	2.64	38	0.34	32	0.19	34	34.67	3
Maryland	1.23	23	0.26	24	0.14	24	23.67	2
Massachusetts	5.03	43	0.55	45	0.30	45	44.33	4
Michigan	0.40	3	0.12	3	0.06	2	2.67	1
Minnesota	2.17	31	0.30	28	0.15	28	29.00	3
Mississippi	0.37	2	0.11	2	0.06	2	2.00	1
Missouri	3.32	40	0.42	41	0.23	41	40.67	4
Montana	1.07	22	0.28	26	0.13	23	23.67	2
Nebraska	2.36	34	0.33	30	0.17	32	32.00	3
Nevada	1.33	25	0.38	39	0.14	24	29.33	3
New Hampshire	10.34	47	0.76	48	0.39	47	47.33	4
New Jersey	7.87	46	0.70	47	0.39	47	46.67	4
New Mexico	1.38	26	0.24	22	0.10	17	21.67	2
New York	3.74	41	0.40	40	0.21	40	40.33	4
North Carolina	0.47	6	0.14	5	0.07	5	5.33	1
North Dakota	0.62	12	0.23	20	0.09	12	14.67	2
Ohio	1.96	29	0.36	37	0.19	34	33.33	3
Oklahoma	0.96	21	0.21	18	0.11	19	19.33	2
Oregon	0.66	15	0.19	14	0.08	10	13.00	2
Pennsylvania	2.39	35	0.35	34	0.20	38	35.67	3
Rhode Island	2.88	39	0.35	34	0.19	34	35.67	3
South Carolina	0.46	5	0.12	3	0.06	2	3.33	1
South Dakota	2.17	31	0.37	38	0.20	38	35.67	3
Tennessee	0.92	19	0.21	18	0.11	19	18.67	2
Texas	6.61	44	0.50	43	0.28	43	43.33	4
Utah	0.48	7	0.15	6	0.07	5	6.00	1
Vermont	20.44	49	0.87	49	0.45	49	49.00	4
Virginia	2.63	37	0.35	34	0.19	34	35.00	3
Washington	0.45	4	0.16	11	0.07	5	6.67	1
West Virginia	0.51	8	0.19	14	0.09	12	11.33	1
Wisconsin	2.03	30	0.27	25	0.15	28	27.67	2
Wyoming	7.78	45	0.53	44	0.29	44	44.33	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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Cost of education adjustments had no effect on the Gini coefficient across the United States; it remained 0.21 (table 3-3). The same nine states exceeded the United States level of variation as before cost adjustments, though cost adjustments decreased the range of variation. After adjustments, the Gini coefficient ranged from 0.05 in Alabama to 0.45 in Vermont.

Overall Variation

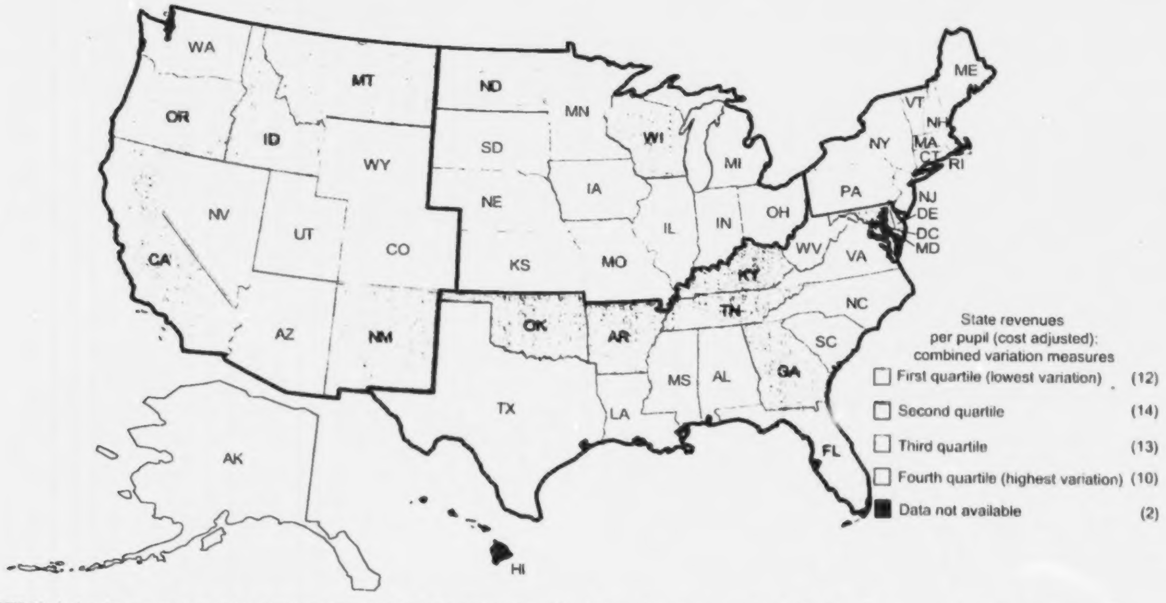
In a synthesis of variation measures, 100 percent of the states in the Northeast ranked in the two quartiles with highest variation when compared with states across the country, both before and after cost adjustments (table 3-4 and figure 3-1). In contrast, states in the South had less variation, with 81 percent before cost adjustments and 88 percent after falling in the two quartiles with lowest variation. Half of the states in the West and Midwest fell into the quartiles with lowest variation.

Table 3-4. Variation in state revenues per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted state revenues per pupil		
Northeast	0	100
Midwest	42	58
South	81	19
West	58	42
Cost-adjusted state revenues per pupil		
Northeast	0	100
Midwest	42	58
South	88	13
West	58	42

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Figure 3-1. Synthesis of variation measures of state revenues per pupil (cost-adjusted dollars), by state: 1997–98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PA
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VT
NH
ME
MA
CT
RI
NJ
DE
DC
MD
AK
HI
State revenues per pupil (cost adjusted): combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (14)
☐ Third quartile (13)
☐ Fourth quartile (highest variation) (10)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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In all cases, states with relatively small variation on one measure also demonstrated relatively small variation on the other two measures (tables 3-2 and 3-3). In particular, the two states with the least variation overall and the one state with the most variation overall, both before and after cost adjustments, held exactly the same rank among the states, no matter which measure was used.

Relationship between State Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, state revenues per pupil in unadjusted dollars showed a negative relationship with a school district's median household income (-0.31) and its median value owner-occupied housing (-0.12) (table A-10). Similarly, at the state level, median value owner-occupied housing was negatively related to state revenues per pupil in all but one of the 40 states with available data; there was no significant relationship found in Michigan (table 3-5). A moderate relationship was found in 14 states, while over half of the states with sufficient data (25) showed a strong negative relationship between median value owner-occupied housing and state revenues per pupil. Median household income was less strongly related to state revenues per pupil. Two states (Delaware and Nevada) showed no statistically significant relationship between district income and state revenues per pupil, 17 states showed a moderate negative relationship between income and revenues, and 20 states showed a strong negative relationship. Michigan showed a weak positive relationship.

After cost adjustments, the negative relationship between district wealth and state revenues per pupil was strengthened for the United States as a whole and for most states. The cost-adjusted correlation with median value owner-occupied housing was -0.30. The cost-adjusted correlation with median household income was -0.44 (table A-11). After cost adjustments, all states with sufficient data showed a negative relationship between state revenues per pupil and median value owner-occupied housing (figure 3-2). Seven states showed a moderate negative relationship (Arizona, California, Michigan, Nebraska, Vermont, West Virginia, and Wyoming), while the other 33 states demonstrated a strong negative correlation. Similarly, only 1 state (Nevada) had no significant relationship between a district's median household income and adjusted state revenues per pupil and 13 states showed a moderate negative relationship between these variables. In two-thirds of the states reporting data (26), there was a strong negative relationship between median household income and state revenues per pupil (figure 3-3).

State revenues per pupil showed a positive relationship with minority enrollment for the United States as a whole, both before (+0.20) and after (+0.10) cost adjustments. This was the case in most states as well (table 3-5). Six states (Alaska, Connecticut, Indiana, Maryland, Missouri, and Rhode Island) showed a strong positive relationship between minority enrollment and state revenues per pupil before cost adjustments and 4 states (Alaska, Connecticut, Maryland, and Rhode Island) showed this relationship after cost adjustments (figure 3-4). Nevada was the only state to show a strong negative relationship between minority enrollment and state revenues per pupil, and this was before cost adjustments only.

The percent of school-age children in poverty in a district showed a stronger positive relationship with state revenues per pupil, both at the national level and in the states. The correlation between percent school-age children in poverty and state revenues per pupil was +0.32 before cost adjustments and +0.35 after cost adjustments. Sixteen states showed a strong positive relationship between children in poverty and state revenues per pupil, both before and after cost adjustments. No states showed a negative relationship between children in poverty and state revenues per pupil, either before or after cost adjustments to revenues (figure 3-5).

Table 3-5. Correlations between state revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Connecticut, Indiana, Maryland, Missouri, Rhode Island	Alaska, Connecticut, Maryland, Rhode Island
Moderate positive relationship	Arizona, California, Florida, Idaho, Illinois, Iowa, Massachusetts, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, Virginia, Washington, Wisconsin, *US overall*	Arizona, California, Idaho, Illinois, Indiana,[1] Massachusetts, Michigan, Minnesota, Missouri,[1] Montana, North Dakota, Ohio, Pennsylvania, South Carolina, Wisconsin
Weak positive relationship	[none]	*US overall*[2]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Maine, New Hampshire, Tennessee, Texas	Kansas,[1] Louisiana,[1] Maine, New Hampshire, New York,[1] Tennessee, Texas, West Virginia[1]
Strong negative relationship	Nevada	[none]
No significant relationship	Alabama, Delaware, Kansas, Louisiana, New York, North Carolina, Utah, Vermont, West Virginia, Wyoming	Alabama, Delaware, Florida,[1] Iowa,[1] Nebraska,[1] Nevada,[1] North Carolina, Oregon,[1] Utah, Vermont, Virginia,[1] Washington,[1] Wyoming
School-age children in poverty		
Strong positive relationship	Alaska, Connecticut, Florida, Illinois, Indiana, Maryland, Massachusetts, Minnesota, Missouri, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, Wisconsin, Wyoming	Alaska, California,[1] Connecticut, Florida, Illinois, Indiana, Maryland, Massachusetts, Missouri, North Carolina,[1] Ohio, Pennsylvania, Rhode Island, Virginia, Wisconsin, Wyoming
Moderate positive relationship	Alabama, Arizona, California, Idaho, Iowa, Kansas, Maine, Michigan, Montana, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Oregon, South Carolina, Tennessee, Vermont, Washington, West Virginia, *US overall*	Alabama, Arizona, Idaho, Iowa, Kansas, Maine, Michigan, Minnesota,[1] Montana, Nebraska, New Hampshire, New York, North Dakota, Oregon, South Carolina, Tennessee, Texas,[1] Vermont, Washington, West Virginia, *US overall*
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	Delaware, Louisiana, Nevada, Utah	Delaware, Louisiana, Nevada, Utah
Median household income		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	Michigan	[none]
Weak negative relationship	Nebraska	[none]
Moderate negative relationship	Arizona, California, Florida, Idaho, Iowa, Louisiana, Maine, Montana, New Hampshire, North Dakota, Oregon, South Carolina, Tennessee, Utah, Vermont, Washington, *US overall*	Arizona, Idaho, Louisiana, Maine, Michigan,[1] Montana, Nebraska,[1] New Hampshire, North Dakota, Oregon, South Carolina, Utah, Vermont, *US overall*
Strong negative relationship	Alabama, Alaska, Connecticut, Illinois, Indiana, Kansas, Maryland, Massachusetts, Minnesota, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, West Virginia, Wisconsin, Wyoming	Alabama, Alaska, California,[1] Connecticut, Delaware,[1] Florida,[1] Illinois, Indiana, Iowa,[1] Kansas, Maryland, Massachusetts, Minnesota, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee,[1] Texas, Virginia, Washington,[1] West Virginia, Wisconsin, Wyoming
No significant relationship	Delaware, Nevada	Nevada
Median value owner-occupied housing		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Arizona, California, Iowa, Missouri, Montana, Nebraska, North Carolina, North Dakota, Oregon, South Carolina, Vermont, Washington, West Virginia, Wyoming, *US overall*	Arizona, California, Michigan,[1] Nebraska, Vermont, West Virginia, Wyoming, *US overall*
Strong negative relationship	Alabama, Alaska, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Nevada, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Virginia, Wisconsin	Alabama, Alaska, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa,[1] Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Missouri,[1] Montana,[1] Nevada, New Hampshire, New York, North Carolina,[1] North Dakota,[1] Ohio, Oregon,[1] Pennsylvania, Rhode Island, South Carolina,[1] Tennessee, Texas, Utah, Virginia, Washington,[1] Wisconsin
No significant relationship	Michigan	[none]

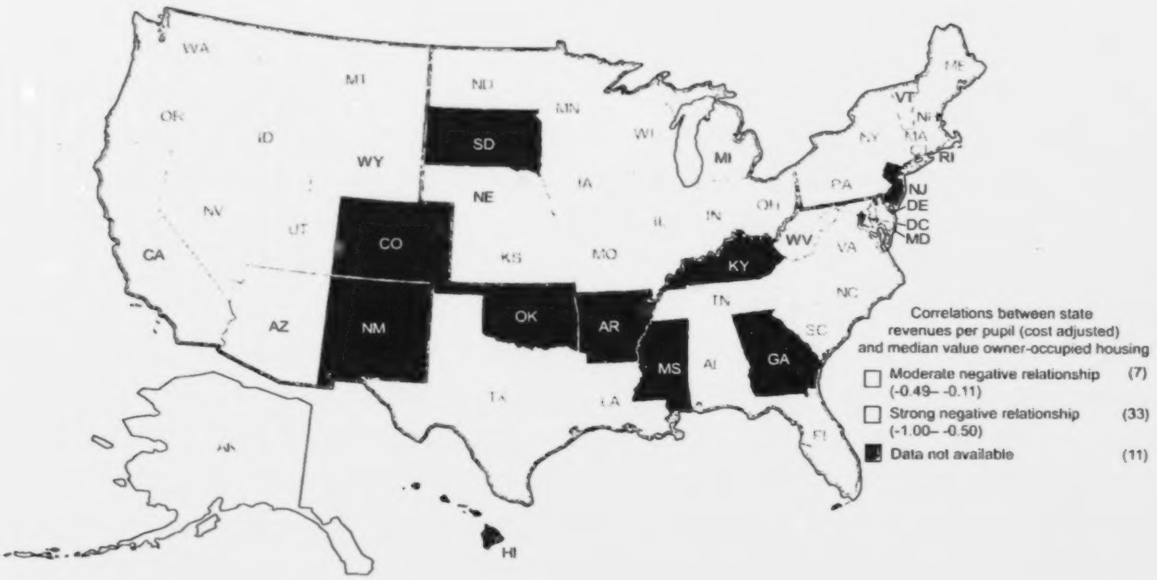
Table 3-5. Correlations between state revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Massachusetts, New Jersey, Rhode Island	Massachusetts, New Jersey, Rhode Island
Weak positive relationship	Michigan	[none]
Weak negative relationship	*US overall*	Pennsylvania,[1] *US overall*
Moderate negative relationship	Alabama, Arkansas, Colorado, Georgia, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Missouri, Montana, New Mexico, North Carolina, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia	Alabama, Arizona,[1] Arkansas, Colorado, Georgia, Idaho, Indiana,[1] Iowa,[1] Kansas, Kentucky, Louisiana, Maine, Minnesota,[1] Mississippi, Missouri, Montana, New Mexico, North Carolina, North Dakota,[1] Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah,[1] Vermont, Virginia, Washington, West Virginia
Strong negative relationship	[none]	[none]
No significant relationship	Alaska, Arizona, California, Connecticut, Delaware, Florida, Illinois, Indiana, Iowa, Maryland, Minnesota, Nebraska, Nevada, New Hampshire, New York, North Dakota, Ohio, Pennsylvania, Utah, Wisconsin, Wyoming	Alaska, California, Connecticut, Delaware, Florida, Illinois, Maryland, Michigan,[1] Nebraska, Nevada, New Hampshire, New York, Ohio, Wisconsin, Wyoming

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 3-2. Correlations between state revenues per pupil and median value owner-occupied housing (cost-adjusted dollars), by state: 1997–98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SC
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WV
PA
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VT
NH
ME
MA
RI
NJ
DE
DC
MD
AK
HI
Correlations between state revenues per pupil (cost adjusted) and median value owner-occupied housing
Moderate negative relationship (-0.49– -0.11) (7)
Strong negative relationship (-1.00– -0.50) (33)
Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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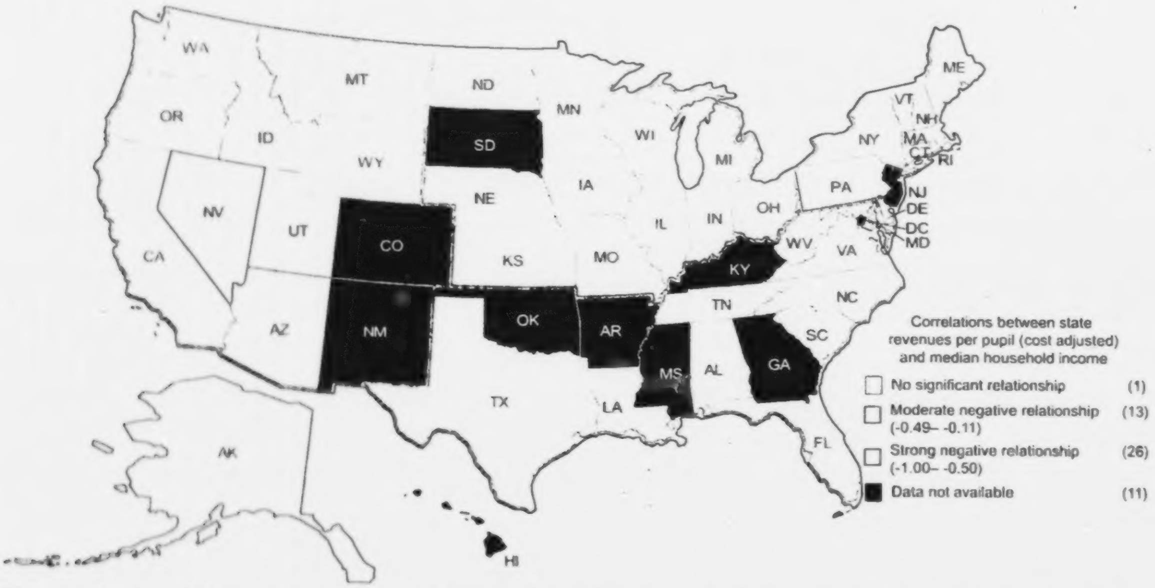
Figure 3-3. Correlations between state revenues per pupil and median household income (cost-adjusted dollars), by state: 1997–98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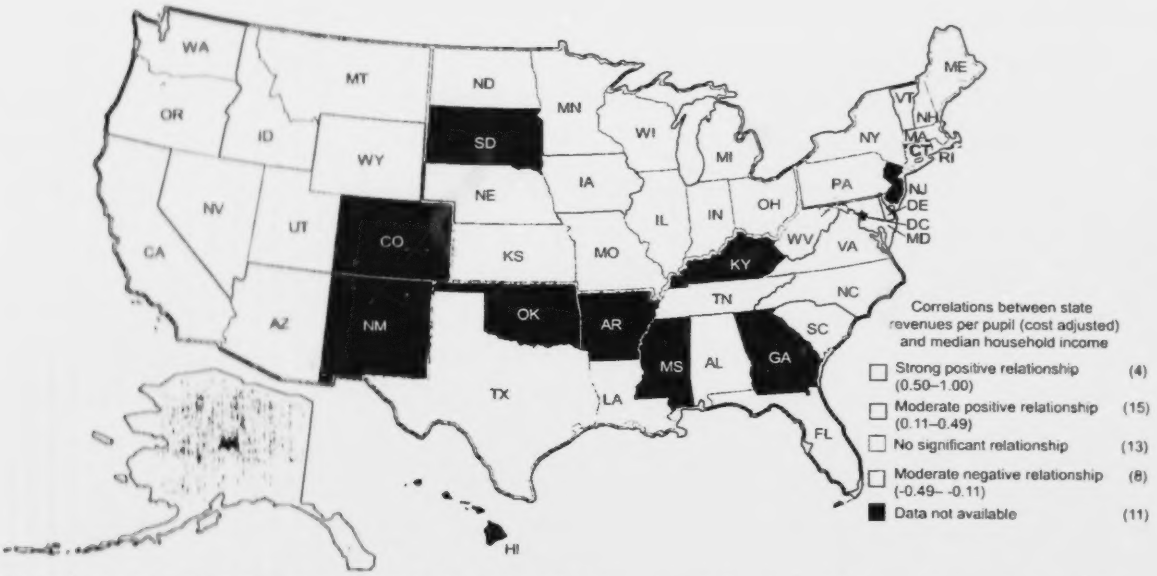
Correlations between state revenues per pupil (cost adjusted) and median household income
☐ No significant relationship (1)
☐ Moderate negative relationship (-0.49– -0.11) (13)
☐ Strong negative relationship (-1.00– -0.50) (26)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 3-4. Correlations between state revenues per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98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Correlations between state revenues per pupil (cost adjusted) and median household income
☐ Strong positive relationship (0.50–1.00) (4)
☐ Moderate positive relationship (0.11–0.49) (15)
☐ No significant relationship (13)
☐ Moderate negative relationship (-0.49– -0.11) (8)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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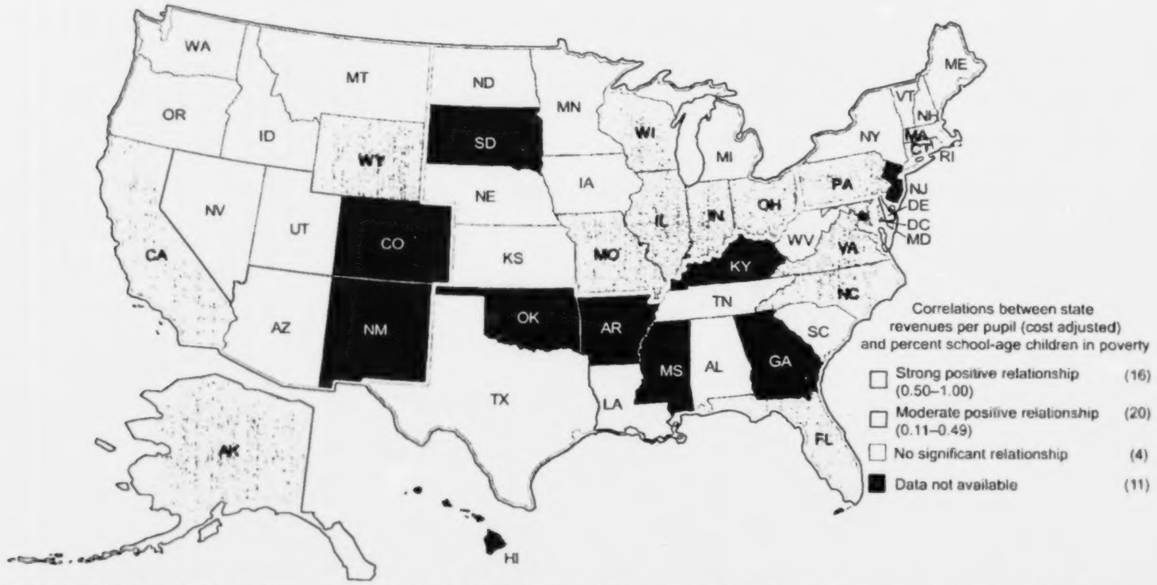
Figure 3-5. Correlations between state revenues per pupil and percent school-age children in poverty (cost-adjusted dollars), by state: 1997–98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Correlations between state revenues per pupil (cost adjusted) and percent school-age children in poverty
☐ Strong positive relationship (0.50–1.00) (16)
☐ Moderate positive relationship (0.11–0.49) (20)
☐ No significant relationship (4)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

General Formula Assistance and General Assistance Revenues

State general formula assistance and general assistance revenues for public elementary and secondary education totaled $111.1 billion in 1997–98 (table 3-6). This was nearly 72 percent of state revenues ($154.6 billion) in 1997–98.

General Assistance Revenues Per Pupil

General formula assistance and general assistance revenues per pupil in the United States averaged $2,435 in 1997–98 before cost adjustments (table 3-6). General assistance revenues per pupil were highest in the Midwest ($2,685) and lowest in the South ($2,238). At $2,545 per pupil, general assistance revenues in the West were higher than in the Northeast ($2,362). The use of cost adjustments increased the range between the highest and lowest regions from $447 to $631 and the ratio of revenues per pupil from 1.2 to 1.3 to 1. The Midwest ($2,788) remained the region with the highest per pupil revenues, and the Northeast ($2,157) replaced the South ($2,437) as the region with lowest general assistance revenues per pupil.

Smaller districts tended to have higher general formula assistance and general assistance revenues per pupil, both before and after cost adjustments. Before cost adjustments, revenues per pupil averaged $2,852 in districts with fewer than 1,000 students, compared to $2,358 in districts with 10,000 or more students. After cost adjustments, smaller districts continued to have higher average general assistance revenues per pupil than larger districts. In addition, the difference between the smallest and the largest

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Table 3-6. State general formula assistance revenues, cost-adjusted general formula assistance revenues, general formula assistance revenues per pupil, and cost-adjusted general formula assistance revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	General formula assistance (in thousands)	Cost-adjusted general formula assistance (in thousands)	General formula assistance per pupil	Cost-adjusted general formula assistance per pupil
All districts	$111,129,283	$112,466,329	$2,435	$2,472
Region				
Northeast	18,733,005	17,059,076	2,362	2,157
Midwest	28,520,288	29,459,535	2,685	2,788
South	36,877,644	40,150,595	2,238	2,437
West	26,998,346	25,797,124	2,545	2,446
District enrollment				
0–999	7,753,847	8,675,725	2,852	3,238
1,000–4,999	32,508,466	34,164,273	2,503	2,643
5,000–9,999	16,926,370	17,021,121	2,399	2,418
10,000 or more	53,940,600	52,605,211	2,358	2,302
Minority enrollment				
Less than 5 percent	29,160,987	30,646,804	2,582	2,715
5 percent–<20 percent	27,216,314	27,701,527	2,268	2,308
20 percent–<50 percent	29,931,401	30,184,615	2,332	2,351
50 percent or more	19,092,541	18,104,837	2,678	2,539
Data missing	5,728,040	5,828,548	—	—
School-age children in poverty				
Less than 5 percent	8,924,304	8,431,106	1,726	1,632
5 percent–<15 percent	36,403,761	36,677,413	2,351	2,369
15 percent–<25 percent	29,464,410	30,833,232	2,486	2,602
25 percent or more	30,608,768	30,696,030	2,846	2,854
Data missing	5,728,040	5,828,548	—	—
Median household income				
Less than $20,000	11,264,616	12,343,107	3,255	3,566
$20,000–<$25,000	23,271,521	24,894,328	2,771	2,965
$25,000–<$30,000	27,852,163	28,127,055	2,485	2,509
$30,000–<$35,000	17,628,868	17,454,844	2,331	2,308
$35,000 or more	25,384,075	23,818,447	2,009	1,886
Data missing	5,728,040	5,828,548	—	—
Median value owner-occupied housing				
Less than $40,000	12,201,178	13,550,168	3,335	3,703
$40,000–<$55,000	22,197,550	23,984,741	2,835	3,064
$55,000–<$85,000	34,168,181	35,303,092	2,365	2,444
$85,000 or more	36,834,334	33,799,780	2,126	1,951
Data missing	5,728,040	5,828,548	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

districts increased from $494 to $936 per pupil. Correlation analysis found a weak negative relationship between district enrollment and general assistance revenues per pupil, both before (-0.04) and after (-0.06) cost adjustments (tables A-1 and A-2).

Before cost adjustments, general assistance revenues per pupil showed a negative relationship with two measures of district wealth—median household income (-0.34) and median value owner-occupied housing (-0.28) (table A-12). School districts with median household income at or above $35,000 had average revenues per pupil of $2,009, while districts with median household incomes below $20,000 had revenues per pupil of $3,255 (table 3-6). Similarly, districts with median housing values at or above $85,000 had average general assistance revenues of $2,126 per pupil, while districts with median housing values below $40,000 had revenues per pupil of $3,335.

After cost adjustments, the differences increased. General assistance adjusted revenues per pupil became higher in districts with the lowest median household incomes ($3,566 per pupil), and lower in districts with the highest incomes ($1,886). Adjustments also raised general assistance revenues per pupil in districts with the lowest median housing values ($3,703) and lowered them in districts with the highest housing values ($1,951). Correlation measures were also strengthened by cost adjustments, indicating that general assistance revenues per pupil were higher in districts with smaller economic bases, both before and after cost adjustments. The correlation between adjusted general assistance revenues per pupil and median household income was -0.43 and median value owner-occupied housing was -0.40 (table A-13).

General assistance revenues per pupil showed a weak relationship with percent minority enrollment before cost adjustments (+0.07; the relationship was not significant after cost adjustments). However, general assistance revenues per pupil were positively correlated with district poverty, both before (+0.29) and after (+0.31) cost adjustments. Revenues per pupil were lowest in the lowest-poverty districts and highest in the highest poverty districts—$1,726 and $2,846, respectively, before cost adjustments, and $1,632 and $2,854 respectively, after cost adjustments.

Variations in General Assistance Revenues Per Pupil

The restricted range ratio for unadjusted general formula assistance and general assistance revenues ranged from 0.12 in Alabama to 15.35 in Maine and an extreme 591.10 in Connecticut[10] (table 3-7). The United States ratio was 7.92 with 5 states exceeding the national measure: Connecticut, Illinois, Maine, Massachusetts, and Texas. Cost adjustments increased the variation in 38 of the 46 states with sufficient data to make the calculation,[11] as well as in the United States overall (table 3-8). After cost adjustments, the restricted range ratio ranged from 0.23 in Alabama to 14.28 in Texas. (Connecticut remained an outlier at 601.10.) The cost-adjusted United States ratio was 8.80, with Connecticut, Illinois, Maine, Massachusetts, and Texas continuing to exceed the national measure.

The coefficient of variation for unadjusted general assistance revenues ranged from 0.05 in Alabama to 1.18 in Vermont (table 3-7). Eight states exceeded the national variation of 0.48: Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Texas, Vermont, and Wyoming. Cost adjustments again increased the variation, this time in 45 out of 49 states (table 3-8). After cost adjustments, the coefficient of variation ranged from 0.07 in Alabama to 1.19 in Vermont. The cost-adjusted United States coefficient was 0.49, and the same 8 states continued to exceed the national measure.

Before cost adjustments, the Gini coefficient for general assistance revenues ranged from 0.02 in Alabama to 0.63 in Vermont (table 3-7). The unadjusted coefficient for the United States was 0.26, with 7 states exceeding the national measure: Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Texas, and Vermont. Cost adjustments decreased the range between the highest- and lowest-variation states (table 3-8). After cost adjustments, the coefficient ranged from 0.04 in Alabama to 0.61 in Vermont. The adjusted national Gini coefficient was 0.27. Pennsylvania joined the seven other states with variation greater than the national measure.

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[10] Revenues per pupil at the fifth percentile in Connecticut were very small (0.0089), while at the 95th percentile they were 5.1607, leading to an exceptionally high restricted range ratio.

[11] Variation was not measured in the District of Columbia or Hawaii where there was only one school district. [The restricted range ratio for general formula assistance revenues was infinity in New Hampshire, New Jersey, or Vermont because revenues per pupil at the fifth percentile were equal to zero.]

Table 3-7. Variation in general formula assistance revenues per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	7.92	†	0.48	†	0.26	†	†	†
Alabama	0.12	1	0.05	1	0.02	1	1.00	1
Alaska	1.69	25	0.39	35	0.16	27	29.00	3
Arizona	2.11	28	0.28	24	0.14	23	25.00	2
Arkansas	1.01	21	0.18	15	0.09	14	16.67	2
California	2.74	32	0.30	27	0.16	27	28.67	3
Colorado	2.81	33	0.32	31	0.17	31	31.67	3
Connecticut	(3)	(3)	0.80	46	0.46	46	46.00	4
Delaware	0.20	4	0.07	4	0.04	4	4.00	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.62	23	0.27	23	0.14	23	23.00	2
Georgia	0.47	10	0.11	6	0.06	7	7.67	1
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.76	16	0.22	22	0.12	22	20.00	2
Illinois	9.80	43	0.60	44	0.34	44	43.67	4
Indiana	0.94	19	0.18	15	0.10	18	17.33	2
Iowa	0.43	9	0.13	10	0.07	8	9.00	1
Kansas	1.68	24	0.30	27	0.16	27	26.00	2
Kentucky	0.82	17	0.20	19	0.11	20	18.67	2
Louisiana	0.41	7	0.12	8	0.07	8	7.67	1
Maine	15.35	45	0.43	39	0.24	40	41.33	4
Maryland	2.39	30	0.32	31	0.18	33	31.33	3
Massachusetts	9.71	42	0.69	45	0.38	45	44.00	4
Michigan	0.49	11	0.13	10	0.07	8	9.67	1
Minnesota	3.91	36	0.29	25	0.15	25	28.67	3
Mississippi	0.21	5	0.06	2	0.04	4	3.67	1
Missouri	5.66	39	0.41	37	0.23	38	38.00	4
Montana	0.75	15	0.21	21	0.10	18	18.00	2
Nebraska	4.99	37	0.40	36	0.22	37	36.67	3
Nevada	1.87	26	0.46	41	0.18	33	33.33	3
New Hampshire	(2)	(2)	1.16	48	0.57	48	48.00	4
New Jersey	(2)	(2)	0.96	47	0.53	47	47.00	4
New Mexico	1.20	22	0.17	14	0.08	13	16.33	2
New York	3.75	35	0.37	33	0.19	35	34.33	3
North Carolina	0.18	3	0.06	2	0.03	2	2.33	1
North Dakota	0.25	6	0.11	6	0.04	4	5.33	1
Ohio	2.20	29	0.30	27	0.17	31	29.00	3
Oklahoma	0.82	17	0.20	19	0.11	20	18.67	2
Oregon	0.57	12	0.18	15	0.09	14	13.67	2
Pennsylvania	5.34	38	0.45	40	0.26	41	39.67	4
Rhode Island	6.06	40	0.41	37	0.23	38	38.33	4
South Carolina	0.98	20	0.18	15	0.09	14	16.33	2
South Dakota	3.03	34	0.38	34	0.21	36	34.67	3
Tennessee	0.64	13	0.16	12	0.09	14	13.00	2
Texas	14.75	44	0.52	43	0.30	43	43.33	4
Utah	0.67	14	0.16	12	0.07	8	11.33	1
Vermont	(2)	(2)	1.18	49	0.63	49	49.00	4
Virginia	1.92	27	0.30	27	0.16	27	27.00	3
Washington	0.13	2	0.09	5	0.03	2	3.00	1
West Virginia	0.41	7	0.12	8	0.07	8	7.67	1
Wisconsin	2.50	31	0.29	25	0.15	25	27.00	2
Wyoming	6.59	41	0.49	42	0.26	41	41.33	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for general formula assistance revenues in New Hampshire, New Jersey, or Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

[3] Revenues per pupil at the fifth percentile in Connecticut were very small, near zero, leading to a very large restricted range ratio.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 3-8. Variation in general formula assistance revenues per pupil (cost-adjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	8.80	†	0.49	†	0.27	†	†	†
Alabama	0.23	1	0.07	1	0.04	1	1.00	1
Alaska	1.53	23	0.40	33	0.16	23	26.33	2
Arizona	2.46	29	0.31	24	0.16	23	25.33	2
Arkansas	1.29	22	0.20	16	0.11	16	18.00	2
California	3.33	33	0.32	26	0.17	26	28.33	3
Colorado	3.04	31	0.35	31	0.19	32	31.33	3
Connecticut	(3)	(3)	0.80	46	0.45	46	46.00	4
Delaware	0.29	3	0.10	3	0.05	2	2.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.75	24	0.30	23	0.16	23	23.33	2
Georgia	0.75	11	0.17	11	0.10	13	11.67	1
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.89	17	0.24	19	0.13	20	18.67	2
Illinois	12.34	43	0.67	44	0.37	44	43.67	4
Indiana	0.88	16	0.19	13	0.11	16	15.00	2
Iowa	0.51	8	0.14	7	0.07	8	7.67	1
Kansas	2.26	26	0.36	32	0.20	34	30.67	3
Kentucky	1.03	19	0.24	19	0.13	20	19.33	2
Louisiana	0.57	10	0.16	10	0.09	12	10.67	1
Maine	13.66	44	0.46	39	0.25	39	40.67	4
Maryland	2.42	28	0.33	28	0.18	29	28.33	3
Massachusetts	10.38	42	0.70	45	0.39	45	44.00	4
Michigan	0.45	7	0.13	5	0.06	6	6.00	1
Minnesota	5.06	36	0.34	29	0.17	26	30.33	3
Mississippi	0.30	4	0.08	2	0.05	2	2.67	1
Missouri	6.93	40	0.44	38	0.25	39	39.00	4
Montana	0.87	13	0.24	19	0.12	19	17.00	2
Nebraska	5.73	38	0.43	37	0.23	37	37.33	4
Nevada	1.87	25	0.47	40	0.18	29	31.33	3
New Hampshire	(2)	(2)	1.19	48	0.57	48	48.00	4
New Jersey	(2)	(2)	0.95	47	0.53	47	47.00	4
New Mexico	1.26	21	0.19	13	0.08	10	14.67	2
New York	4.25	35	0.41	35	0.22	35	35.00	3
North Carolina	0.30	4	0.10	3	0.05	2	3.00	1
North Dakota	0.41	6	0.14	7	0.06	6	6.33	1
Ohio	2.34	27	0.32	26	0.18	29	27.33	3
Oklahoma	1.11	20	0.24	19	0.13	20	19.67	2
Oregon	0.75	11	0.22	18	0.10	13	14.00	2
Pennsylvania	6.21	39	0.48	41	0.28	42	40.67	4
Rhode Island	5.64	37	0.40	33	0.22	35	35.00	3
South Carolina	0.94	18	0.19	13	0.10	13	14.67	2
South Dakota	3.66	34	0.42	36	0.23	37	35.67	3
Tennessee	0.87	13	0.20	16	0.11	16	15.00	2
Texas	14.28	45	0.55	43	0.31	43	43.67	4
Utah	0.87	13	0.17	11	0.08	10	11.33	1
Vermont	(2)	(2)	1.19	48	0.61	49	48.50	4
Virginia	2.47	30	0.34	29	0.19	32	30.33	3
Washington	0.27	2	0.14	7	0.05	2	3.67	1
West Virginia	0.54	9	0.13	5	0.07	8	7.33	1
Wisconsin	3.11	32	0.31	24	0.17	26	27.33	2
Wyoming	7.05	41	0.50	42	0.27	41	41.33	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

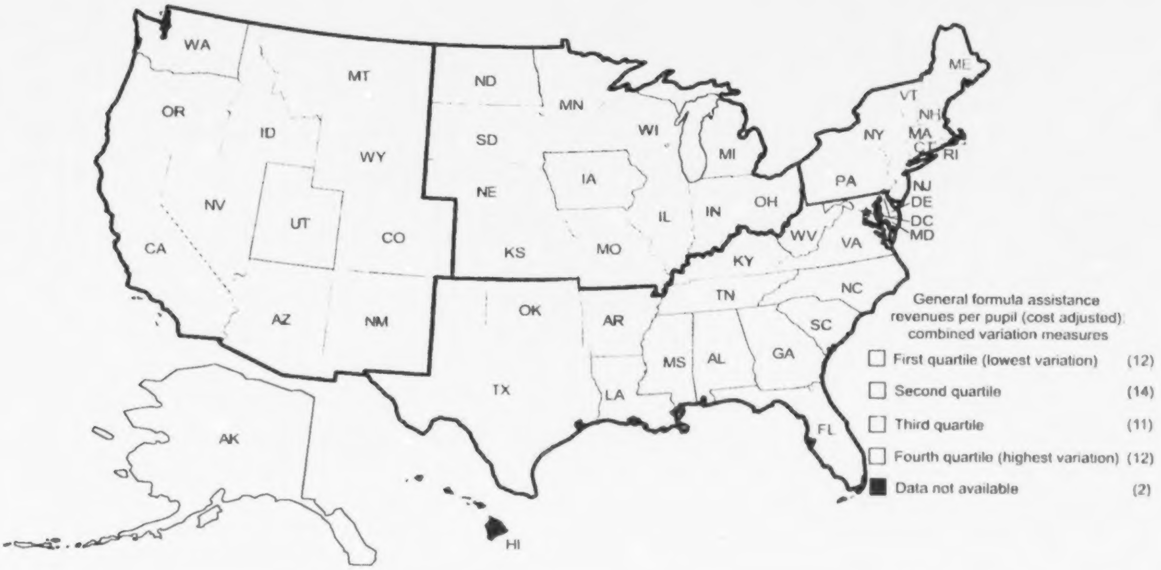
[2] The restricted range ratio could not be calculated for general formula assistance revenues in New Hampshire, New Jersey, or Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

[3] Revenues per pupil at the fifth percentile in Connecticut were very small, near zero, leading to a very large restricted range ratio.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

General assistance revenues per pupil showed the same regional patterns as state revenues (figure 3-6). States in the Northeast had high variation among districts (100 percent fell in the two quartiles with highest variation), while states in the South had low variation (81 percent fell in the two quartiles with lowest variation) (table 3-9).

Figure 3-6. Synthesis of variation measures of general formula assistance revenues per pupil (cost-adjusted dollars), by state: 1997–98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General formula assistance revenues per pupil (cost adjusted) combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (14)
☐ Third quartile (11)
☐ Fourth quartile (highest variation) (12)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 3-9. Variation in general formula assistance revenues per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted general formula assistance revenues per pupil		
Northeast	0	100
Midwest	50	50
South	81	19
West	58	42
Cost-adjusted general formula assistance revenues per pupil		
Northeast	0	100
Midwest	42	58
South	81	19
West	67	33

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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Relationship between General Assistance Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole and for nearly all states, general formula assistance and general assistance revenues per pupil showed a negative relationship with two measures of district fiscal capacity—median value owner-occupied housing and median household income—both before and after cost adjustments. The unadjusted United States correlation for median value owner-occupied housing was -0.28 and for median household income was -0.34. The adjusted correlations were -0.40 (housing value) and -0.43 (household income) (tables A-12 and A-13). Before cost adjustments, all states with sufficient data except Michigan and Washington showed a negative relationship with median value owner-occupied housing (table 3-10). Michigan demonstrated a moderate, positive relationship while Washington demonstrated no significant relationship. After cost adjustments, all of the 40 states with sufficient data showed a negative relationship, and three-fourths (30 states) showed a strong negative correlation.

Similarly, 34 states demonstrated a negative relationship between unadjusted general assistance revenues per pupil and median household income. Only Michigan demonstrated a moderate, positive relationship, and Nebraska, Nevada, South Carolina, Utah, and Washington showed no significant relationship between revenues per pupil and income. After cost adjustments, all states but four demonstrated a negative relationship between revenues per pupil and household income. Michigan, Nevada, South Carolina, and Utah showed no significant relationship after cost adjustments.

For the United States as a whole, a weak positive relationship (+0.07) was found between general assistance revenues per pupil and percent minority enrollment before cost adjustments; no significant relationship was found after adjustments. However, before cost adjustments, 20 states showed a positive relationship between these variables, 15 states showed no significant relationship, and five states—Kansas, Nevada, New Hampshire, Tennessee, and Texas—showed a negative relationship (table 3-10). After cost adjustments were applied, 18 states retained a positive relationship, and 13 states had no significant relationship between revenues per pupil and minority enrollment. Kansas, Louisiana, Maine, Minnesota, New Hampshire, New York, Tennessee, Texas, and Washington all demonstrated a moderate negative relationship between cost-adjusted revenues per pupil and percent minority enrollment.

In contrast, percent school-age children in poverty was positively correlated with general assistance revenues per pupil, both before (+0.29) and after (+0.31) cost adjustments and in nearly all the states. No states showed a negative correlation between the variables either before or after cost adjustments (table 3-10). Before cost adjustments, six states did not show a positive relationship: in Delaware, Louisiana, Nevada, South Carolina, Utah, and Washington there was no significant relationship between revenues per pupil and school-age children in poverty. After cost adjustments, all measurable states except four showed a positive relationship: Louisiana, Nevada, South Carolina, and Utah continued to show no relationship.

State Instructional Program Revenues

State instructional program revenues for public elementary and secondary education totaled $12.7 billion in 1997–98 (table 3-11). This was just over 8 percent of state revenues ($154.6 billion) in 1997–98.

Table 3-10. Correlations between general formula assistance revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Connecticut, Rhode Island	Alaska, Connecticut, Rhode Island
Moderate positive relationship	Arizona, California, Florida, Idaho, Illinois, Indiana, Iowa, Massachusetts, Michigan, Missouri, Montana, Nebraska, North Dakota, Ohio, Pennsylvania, Wisconsin, Wyoming	Arizona, California, Idaho, Indiana, Massachusetts, Michigan, Missouri, Montana, North Dakota, Ohio, Pennsylvania, Wyoming
Weak positive relationship	*US overall*	Illinois,[1] Nebraska,[1] Wisconsin[1]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Kansas, New Hampshire, Tennessee, Texas	Kansas, Louisiana,[1] Maine,[1] Minnesota,[1] New Hampshire, New York,[1] Tennessee, Texas, Washington[1]
Strong negative relationship	Nevada	[none]
No significant relationship	Alabama, Delaware, Louisiana, Maine, Maryland, Minnesota, New York, North Carolina, Oregon, South Carolina, Utah, Vermont, Virginia, Washington, West Virginia	Alabama, Delaware, Florida,[1] Iowa,[1] Maryland, Nevada,[1] North Carolina, Oregon, South Carolina, Utah, Vermont, Virginia, West Virginia, *US overall*[1]
School-age children in poverty		
Strong positive relationship	Alaska, Connecticut, Illinois, Indiana, Maryland, Massachusetts, Missouri, Ohio, Pennsylvania, Rhode Island, Virginia, West Virginia, Wyoming	Alaska, Connecticut, Delaware,[1] Illinois, Indiana, Maryland, Massachusetts, Missouri, North Carolina,[1] Pennsylvania, Rhode Island, Virginia, West Virginia, Wyoming
Moderate positive relationship	Alabama, Arizona, California, Florida, Idaho, Iowa, Kansas, Maine, Minnesota, Montana, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Oregon, Tennessee, Texas, Vermont, Wisconsin, *US overall*	Alabama, Arizona, California, Florida, Idaho, Iowa, Kansas, Maine, Michigan,[1] Minnesota, Montana, Nebraska, New Hampshire, New York, North Dakota, Ohio,[1] Oregon, Tennessee, Texas, Vermont, Washington,[1] Wisconsin, *US overall*
Weak positive relationship	Michigan	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	Delaware, Louisiana, Nevada, South Carolina, Utah, Washington	Louisiana, Nevada, South Carolina, Utah
Median household income		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Michigan	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Alabama, Arizona, California, Florida, Idaho, Iowa, Kansas, Louisiana, Maine, Minnesota, Montana, New Hampshire, North Dakota, Oregon, Tennessee, Vermont, *US overall*	Arizona, California, Idaho, Kansas, Louisiana, Maine, Minnesota, Montana, Nebraska,[1] New Hampshire, North Dakota, Oregon, Tennessee, Vermont, Washington,[1] *US overall*
Strong negative relationship	Alaska, Connecticut, Delaware, Illinois, Indiana, Maryland, Massachusetts, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, West Virginia, Wisconsin, Wyoming	Alabama,[1] Alaska, Connecticut, Delaware, Florida,[1] Illinois, Indiana, Iowa,[1] Maryland, Massachusetts, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, West Virginia, Wisconsin, Wyoming
No significant relationship	Nebraska, Nevada, South Carolina, Utah, Washington	Michigan,[1] Nevada, South Carolina, Utah
Median value owner-occupied housing		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Michigan	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Alabama, Arizona, California, Iowa, Montana, Nebraska, North Dakota, Oregon, South Carolina, Tennessee, Utah, Vermont, Wyoming, *US overall*	Arizona, Michigan,[1] Montana, Nebraska, Oregon, South Carolina, Utah, Vermont, Washington,[1] Wyoming, *US overall*
Strong negative relationship	Alaska, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Missouri, Nevada, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, West Virginia, Wisconsin	Alabama,[1] Alaska, California,[1] Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa,[1] Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Missouri, Nevada, New Hampshire, New York, North Carolina, North Dakota,[1] Ohio, Pennsylvania, Rhode Island, Tennessee,[1] Texas, Virginia, West Virginia, Wisconsin
No significant relationship	Washington	[none]

Table 3-10. Correlations between general formula assistance revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Massachusetts, New Jersey, Rhode Island	Massachusetts, New Jersey, Rhode Island
Weak positive relationship	[none]	[none]
Weak negative relationship	*US overall*	Michigan,[1] *US overall*
Moderate negative relationship	Alabama, Arkansas, Colorado, Georgia, Idaho, Kansas, Kentucky, Louisiana, Maine, Minnesota, Mississippi, Missouri, Montana, New Mexico, North Carolina, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington	Alabama, Arizona,[1] Arkansas, Colorado, Georgia, Idaho, Indiana,[1] Kansas, Kentucky, Louisiana, Maine, Minnesota, Mississippi, Missouri, Montana, New Mexico, North Carolina, Ohio,[1] Oklahoma, Oregon, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia[1]
Strong negative relationship	Delaware	Delaware
No significant relationship	Alaska, Arizona, California, Connecticut, Florida, Illinois, Indiana, Iowa, Maryland, Michigan, Nebraska, Nevada, New Hampshire, New York, North Dakota, Ohio, Pennsylvania, South Carolina, Utah, West Virginia, Wisconsin, Wyoming	Alaska, California, Connecticut, Florida, Illinois, Iowa, Maryland, Nebraska, Nevada, New Hampshire, New York, North Dakota, Pennsylvania, South Carolina, Utah, Wisconsin, Wyoming

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

State Instructional Program Revenues Per Pupil

State instructional program revenues per pupil in the United States averaged $278 in 1997–98 before cost adjustments (table 3-11). State instructional program revenues per pupil were highest in the Midwest ($319) and lowest in the South ($252). At $283 per pupil, state instructional program revenues in the Northeast were higher than in the West ($274). The use of cost adjustments did not affect the range between the highest and lowest regions: the difference changed from $67 to $68 and the ratio remained 1.3 to 1. The Midwest ($323) remained the region with the highest per pupil revenues, and the Northeast ($255) replaced the South ($268) as the region with the lowest state instructional program revenues per pupil.

Smaller districts tended to have lower state instructional program revenues per pupil, both before and after cost adjustments. Before cost adjustments, revenues per pupil averaged $187 in districts with fewer than 1,000 students, compared to $326 in districts with 10,000 or more students. After cost adjustments, smaller districts had average revenues per pupil of $203 while larger districts had average revenues per pupil of $318. Cost adjustments decreased the difference between the smallest and the largest districts from $139 to $115 per pupil. Correlation analysis, however, found a weak relationship between district enrollment and state instructional program revenues per pupil for the United States as a whole, both before (+0.04) and after (+0.03) cost adjustments (tables A-1 and A-2).

State instructional program revenues per pupil showed weak negative relationships with the two measures of district wealth—median household income (-0.09 before cost adjustments, -0.13 after) and median value owner-occupied housing (not statistically significant before adjustments, -0.04 after) (tables A-14 and A-15). School districts with median household income at or above $35,000 had average revenues per pupil of $226 before cost adjustments, while districts with median household incomes below $20,000 had revenues per pupil of $242 (table 3-11). After cost adjustments, the figures became respectively $208 and $259. Similarly, districts with median housing values at or above $85,000 had average state instructional program revenues of $294 per pupil, while districts with median housing

Table 3-11. State instructional program revenues, cost-adjusted instructional program revenues, instructional program revenues per pupil, and cost-adjusted instructional program revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	Instructional program revenues (in thousands)	Cost-adjusted instructional program revenues (in thousands)	Instructional program revenues per pupil	Cost-adjusted instructional program revenues per pupil
All districts	$12,688,960	$12,555,330	$278	$276
Region				
Northeast	2,247,427	2,018,371	283	255
Midwest	3,384,891	3,410,388	319	323
South	4,148,305	4,419,229	252	268
West	2,908,337	2,707,342	274	257
District enrollment				
0–999	509,398	545,231	187	203
1,000–4,999	2,869,252	2,920,914	221	226
5,000–9,999	1,856,579	1,819,895	263	258
10,000 or more	7,453,731	7,269,290	326	318
Minority enrollment				
Less than 5 percent	2,216,138	2,297,252	196	204
5 percent–<20 percent	2,977,596	2,985,120	248	249
20 percent–<50 percent	4,347,390	4,321,478	339	337
50 percent or more	2,523,608	2,376,559	354	333
Data missing	624,228	574,922	—	—
School-age children in poverty				
Less than 5 percent	1,026,260	951,281	198	184
5 percent–<15 percent	3,826,139	3,808,279	247	246
15 percent–<25 percent	3,982,105	4,092,091	336	345
25 percent or more	3,230,228	3,128,756	300	291
Data missing	624,228	574,922	—	—
Median household income				
Less than $20,000	838,110	897,459	242	259
$20,000–<$25,000	2,363,706	2,472,278	281	294
$25,000–<$30,000	3,671,157	3,683,185	328	329
$30,000–<$35,000	2,342,803	2,295,225	310	304
$35,000 or more	2,848,956	2,632,261	226	208
Data missing	624,228	574,922	—	—
Median value owner-occupied housing				
Less than $40,000	909,262	964,022	249	263
$40,000–<$55,000	1,922,472	2,051,047	246	262
$55,000–<$85,000	4,144,621	4,278,270	287	296
$85,000 or more	5,088,377	4,687,069	294	271
Data missing	624,228	574,922	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

values below $40,000 had revenues per pupil of $249 before cost adjustments. Cost adjustments narrowed this range to $271 in the wealthier districts and $263 in the districts with lowest housing values.

While state instructional program revenues per pupil showed a weak positive relationship with percent school-age children in poverty (+0.09 both before and after cost adjustments), they were positively related to percent minority enrollment across the United States (+0.20 unadjusted, +0.18 adjusted). Average unadjusted revenues per pupil were lowest in districts with less than 5 percent minority enrollment ($196) and highest in districts with 50 percent or more minority enrollment ($354). Cost adjustments narrowed the range from $158 to $129, but the relationship was still maintained with $204 in low-minority districts and $333 in high-minority districts.

State Revenues as a Percent of Total Revenues

State revenues were just over 48 percent of total district revenues for public elementary and secondary education in the United States in 1997–98. State revenues were the primary source of funds for public education, followed by local revenues (46 percent) and federal revenues (6 percent).

Variations in State Revenues as a Percent of Total Revenues

The restricted range ratio was 3.87 for percent state revenues across the United States (table 3-12). Among the states, the ratio ranged from a low of 0.33 in North Carolina to a high of 13.68 in Vermont. Ten states—Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Texas, Vermont, and Wyoming—had a higher restricted range ratio than the national measure.

The coefficient of variation ranged from 0.10 in North Carolina and Washington to 0.77 in New Hampshire and Vermont. Twelve states—Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Texas, Vermont, Virginia, and Wyoming—had greater variation than the national level of 0.35.

The smallest Gini coefficient was found in 6 states: Alabama, Alaska, New Mexico, North Carolina, Utah, and Washington all had a Gini coefficient equal to 0.06. Vermont again had the highest variation at 0.43. Nine states exceeded the national measure of 0.20: Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Texas, Vermont, Virginia, and Wyoming.

When a composite variation measure was calculated, states in the Northeast demonstrated the greatest variation (figure 3-7). All Northeastern states fell in the two quartiles of highest variation when compared with other states across the country (table 3-13). Similarly, two-thirds of the states in the Midwest fell in the same two quartiles. In contrast, most of the states in the South and West (81 percent of Southern states, 67 percent of Western states) fell in the two quartiles with least variation in percent state revenues.

Relationship between Percent State Revenues and Selected District Fiscal and Demographic Characteristics

For the United States as a whole and for nearly all states with sufficient data, percent state revenues showed a negative relationship with both measures of district fiscal capacity—median value owner-occupied housing (-0.24) and median household income (-0.43) (table A-16). All states with sufficient data except four showed a negative relationship between percent state revenues and median value owner-occupied housing, with 27 states demonstrating a strong negative correlation (table 3-14). Alaska, Montana, Nebraska, and Utah demonstrated no significant relationship. Seven states did not show a negative relationship between percent state revenues and median household income: Montana showed a moderate, positive relationship while Alaska, Nebraska, Nevada, North Dakota, South Carolina, and Utah showed no significant relationship.

A moderate, positive relationship (+0.12) was found between percent state revenues and percent minority enrollment. Fourteen of the 40 states with sufficient data showed no significant relationship. Fourteen states, 10 of which were east of the Mississippi River, showed a positive relationship, while 12 states scattered around the country showed a negative relationship between percent state revenues

Table 3-12. Variation in percent state revenues, by state: 1997–98

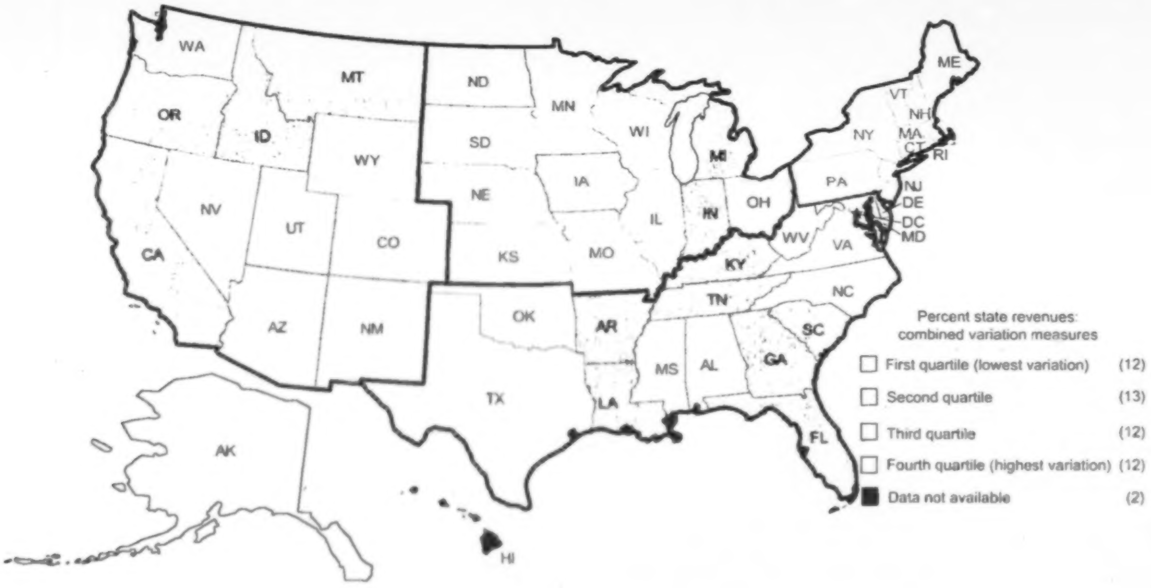
State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	3.87	†	0.35	†	0.20	†	†	†
Alabama	0.34	2	0.11	3	0.06	1	2.00	1
Alaska	0.42	4	0.12	4	0.06	1	3.00	1
Arizona	2.64	36	0.28	29	0.15	30	31.67	3
Arkansas	0.86	21	0.18	20	0.10	19	20.00	2
California	1.21	26	0.21	23	0.11	22	23.67	2
Colorado	2.28	33	0.31	33	0.17	32	32.67	3
Connecticut	9.35	47	0.59	46	0.34	46	46.33	4
Delaware	0.40	3	0.12	4	0.07	7	4.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.13	25	0.22	24	0.11	22	23.67	2
Georgia	1.09	23	0.20	22	0.12	25	23.33	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.65	14	0.17	18	0.09	15	15.67	2
Illinois	5.49	43	0.49	44	0.27	44	43.67	4
Indiana	0.84	19	0.18	20	0.10	19	19.33	2
Iowa	0.55	8	0.13	7	0.07	7	7.33	1
Kansas	1.30	27	0.23	26	0.12	25	26.00	3
Kentucky	0.69	17	0.17	18	0.10	19	18.00	2
Louisiana	0.67	15	0.16	15	0.09	15	15.00	2
Maine	3.33	38	0.31	33	0.17	32	34.33	3
Maryland	1.86	29	0.30	32	0.17	32	31.00	3
Massachusetts	4.16	41	0.51	45	0.29	45	43.67	4
Michigan	0.63	13	0.15	12	0.08	11	12.00	2
Minnesota	2.00	30	0.26	27	0.14	28	28.33	3
Mississippi	0.52	7	0.13	7	0.07	7	7.00	1
Missouri	2.00	30	0.31	33	0.17	32	31.67	3
Montana	0.77	18	0.16	15	0.09	15	16.00	2
Nebraska	2.47	34	0.31	33	0.17	32	33.00	3
Nevada	0.91	22	0.29	30	0.11	22	24.67	3
New Hampshire	9.56	48	0.77	48	0.39	48	48.00	4
New Jersey	6.55	45	0.63	47	0.36	47	46.33	4
New Mexico	0.85	20	0.14	10	0.06	1	10.33	1
New York	4.95	42	0.36	38	0.19	37	39.00	4
North Carolina	0.33	1	0.10	1	0.06	1	1.00	1
North Dakota	0.56	9	0.15	12	0.08	11	10.67	1
Ohio	2.63	35	0.34	37	0.19	37	36.33	3
Oklahoma	0.60	11	0.14	10	0.08	11	10.67	1
Oregon	0.60	11	0.16	15	0.09	15	13.67	2
Pennsylvania	2.69	37	0.36	38	0.20	39	38.00	4
Rhode Island	4.10	40	0.37	40	0.20	39	39.67	4
South Carolina	0.59	10	0.15	12	0.08	11	11.00	2
South Dakota	1.46	28	0.29	30	0.16	31	29.67	3
Tennessee	1.12	24	0.22	24	0.12	25	24.33	2
Texas	7.86	46	0.43	42	0.24	42	43.33	4
Utah	0.67	15	0.13	7	0.06	1	7.67	1
Vermont	13.68	49	0.77	48	0.43	49	48.67	4
Virginia	3.66	39	0.39	41	0.21	41	40.33	4
Washington	0.46	6	0.10	1	0.06	1	2.67	1
West Virginia	0.43	5	0.12	4	0.07	7	5.33	1
Wisconsin	2.08	32	0.26	27	0.14	28	29.00	3
Wyoming	6.46	44	0.48	43	0.26	43	43.33	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Figure 3-7. Synthesis of variation measures of percent state revenues, by state: 1997–98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Percent state revenues: combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (13)
☐ Third quartile (12)
☐ Fourth quartile (highest variation) (12)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 3-13. Variation in percent state revenues, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Percent state revenues		
Northeast	0	100
Midwest	33	67
South	81	19
West	67	33

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

and percent minority enrollment. Connecticut and Rhode Island showed a strong, positive relationship, and only Nevada demonstrated a strong, negative relationship.

Percent state revenues was correlated more strongly with percent school-age children in poverty (+0.34) than with percent minority enrollment at the national level (+0.12). Three Western states—Montana, North Dakota, and Utah—demonstrated a negative relationship between percent poverty and percent state revenues. Six states—Alaska, Arizona, Nebraska, Nevada, South Carolina, and Tennessee—demonstrated no significant relationship. The remaining 31 states with sufficient data showed a positive relationship between percent poverty and percent state revenues (table 3-14).

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Table 3-14. Correlations between percent state revenues and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States
Minority enrollment	
Strong positive relationship	Connecticut, Rhode Island
Moderate positive relationship	California, Illinois, Iowa, Maryland, Massachusetts, Michigan, Missouri, Nebraska, New York, Ohio, Pennsylvania, Wisconsin, *US overall*
Weak positive relationship	New York
Weak negative relationship	Texas
Moderate negative relationship	Alaska, Maine, Minnesota, Montana, New Hampshire, North Dakota, Tennessee, Utah, Washington, West Virginia
Strong negative relationship	Nevada
No significant relationship	Alabama, Arizona, Delaware, Florida, Idaho, Indiana, Kansas, Louisiana, North Carolina, Oregon, South Carolina, Texas, Vermont, Virginia, Wyoming
School-age children in poverty	
Strong positive relationship	Connecticut, Delaware, Illinois, Maryland, Massachusetts, Missouri, Ohio, Pennsylvania, Rhode Island, Virginia
Moderate positive relationship	Alabama, California, Florida, Idaho, Indiana, Iowa, Kansas, Louisiana, Maine, Michigan, Minnesota, New Hampshire, New York, North Carolina, Oregon, Texas, Vermont, Washington, West Virginia, Wisconsin, Wyoming, *US overall*
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	Montana, North Dakota, Utah
Strong negative relationship	[none]
No significant relationship	Alaska, Arizona, Nebraska, Nevada, South Carolina, Tennessee
Median household income	
Strong positive relationship	[none]
Moderate positive relationship	Montana
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	Arizona, California, Florida, Idaho, Indiana, Iowa, Kansas, Maine, Michigan, Minnesota, New Hampshire, Oregon, Tennessee, Vermont, Washington, *US overall*
Strong negative relationship	Alabama, Connecticut, Delaware, Illinois, Louisiana, Maryland, Massachusetts, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Virginia, West Virginia, Wisconsin, Wyoming
No significant relationship	Alaska, Nebraska, Nevada, North Dakota, South Carolina, Utah
Median value owner-occupied housing	
Strong positive relationship	[none]
Moderate positive relationship	[none]
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	Arizona, California, Iowa, Michigan, North Dakota, Oregon, South Carolina, Tennessee, Wyoming, *US overall*
Strong negative relationship	Alabama, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Missouri, Nevada, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin
No significant relationship	Alaska, Montana, Nebraska, Utah

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Chapter 4: State and Local Revenues

State and Local Revenues

State and local revenues for public elementary and secondary education totaled $301.5 billion in 1997–98 (table 4-1). This was approximately 94 percent of total district revenues ($321.6 billion).

State and Local Revenues Per Pupil

State and local revenues in the United States averaged $6,606 per pupil in 1997–98 before cost adjustments (table 4-1). State and local revenues per pupil were highest in the Northeast ($8,742) and lowest in the South ($5,842). The use of cost adjustments decreased the difference between the highest and lowest regions from $2,900 to $2,270 and the ratio of revenues per pupil from 1.5 to 1.4 to 1. Although the Northeast remained the region with the highest state and local revenues at $7,899 per pupil, the West ($5,629) replaced the South ($6,250) as the region with the lowest state and local revenues per pupil.

Smaller districts tended to have greater state and local revenues per pupil, both before and after cost adjustments. Before cost adjustments, state and local revenues per pupil averaged $7,085 in districts with fewer than 1,000 students, compared to $6,397 in districts with 10,000 or more students. After cost adjustments, the difference between the largest and the smallest districts increased from $688 to $1,682 per pupil.

Before cost adjustments, state and local revenues per pupil showed a positive relationship with two measures of district wealth—median household income (+0.39) and median value owner-occupied housing (+0.32) (table A-17). School districts with median household income at or above $35,000 had average state and local revenues per pupil of $7,358, while districts with median household incomes below $20,000 had state and local revenues per pupil of $5,868. Similarly, districts with median housing values at or above $85,000 had average state and local revenues of $7,331 per pupil, while districts with median housing values below $40,000 had revenues per pupil of $6,247.

After cost adjustments, state and local revenues per pupil were again highest in districts with median household income of $35,000 or more ($6,808) and lower in the districts with median household income below $20,000 ($6,448), but there was a smaller overall relationship between household income and state and local revenues per pupil (+0.17). For the United States as a whole, there was a weak positive relationship between state and local revenues and median value owner-occupied housing (+0.03) (table A-18).

State and local revenues per pupil showed a small negative relationship with district demographic characteristics such as percent minority enrollment and percent school-age children living in poverty, both before and after cost adjustments. The correlation between minority enrollment and state and local revenues per pupil was -0.04 before cost adjustments and -0.16 after cost adjustments. Before and after

Table 4-1. State and local revenues, cost-adjusted state and local revenues, state and local revenues per pupil, and cost-adjusted state and local revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	State and local revenues (in thousands)	Cost-adjusted state and local revenues (in thousands)	State and local revenues per pupil	Cost-adjusted state and local revenues per pupil
All districts	$301,489,206	$299,373,789	$6,606	$6,580
Region				
Northeast	69,338,826	62,463,786	8,742	7,899
Midwest	73,042,148	74,564,244	6,877	7,056
South	96,250,481	102,972,028	5,842	6,250
West	62,857,751	59,373,731	5,925	5,629
District enrollment				
0–999	19,260,947	21,185,972	7,085	7,906
1,000–4,999	88,199,584	89,371,788	6,791	6,913
5,000–9,999	47,698,793	46,612,784	6,760	6,620
10,000 or more	146,329,882	142,203,245	6,397	6,224
Minority enrollment				
Less than 5 percent	76,764,908	79,063,641	6,797	7,004
5 percent–<20 percent	80,136,270	79,457,985	6,678	6,621
20 percent–<50 percent	81,33[illegible],630	80,886,529	6,336	6,301
50 percent or more	47,470,810	44,597,324	6,658	6,255
Data missing	15,782,588	15,368,310	—	—
School-age children in poverty				
Less than 5 percent	41,929,122	38,633,721	8,107	7,479
5 percent–<15 percent	101,959,894	101,402,321	6,585	6,549
15 percent–<25 percent	73,155,559	75,961,225	6,173	6,410
25 percent or more	68,662,043	68,008,211	6,384	6,324
Data missing	15,782,588	15,368,310	—	—
Median household income				
Less than $20,000	20,308,690	22,316,982	5,868	6,448
$20,000–<$25,000	51,341,877	54,849,065	6,114	6,532
$25,000–<$30,000	72,570,726	73,008,978	6,475	6,514
$30,000–<$35,000	48,537,356	47,870,053	6,418	6,330
$35,000 or more	92,947,969	85,960,401	7,358	6,808
Data missing	15,782,588	15,368,310	—	—
Median value owner-occupied housing				
Less than $40,000	22,858,112	25,421,440	6,247	6,948
$40,000–<$55,000	47,135,246	50,872,398	6,021	6,498
$55,000–<$85,000	88,702,140	91,393,245	6,139	6,327
$85,000 or more	127,011,120	116,318,396	7,331	6,715
Data missing	15,782,588	15,368,310	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

adjustments, the lowest-minority districts had the highest state and local revenues per pupil, $6,797 and $7,004 respectively. Before cost adjustments, the highest-minority districts had the second-lowest state and local revenues per pupil ($6,658) and after adjustments these districts had the lowest combined revenues ($6,255).

The correlation between percent school-age children in poverty and state and local revenues per pupil was -0.22 before cost adjustments and -0.16 after cost adjustments. State and local revenues per pupil were highest in the lowest-poverty districts both before and after cost adjustments, $8,107 and $7,479 respectively. Before cost adjustments, the highest-poverty districts had the second lowest combined revenues per pupil ($6,384) and after adjustments these districts had the lowest combined revenues ($6,324).

Variations in State and Local Revenues Per Pupil

Restricted Range Ratio

Nationally, the restricted range ratio for unadjusted state and local revenues per pupil was 1.18 (table 4-2). This means that state and local revenues in the district at the 95th percentile were 1.18 times higher than state and local revenues in the district at the 5th percentile. Variation across the states ranged from a low of 0.18 in Nevada to a high of 1.42 in Vermont. Two states (Illinois and Vermont) had a restricted range ratio higher than that for the United States.

When cost adjustments were applied, the restricted range ratio for state and local revenues per pupil across the United States decreased to 0.95 (table 4-3). Five states exceeded the national variation after cost adjustments: Illinois, Montana, New Hampshire, New Mexico, and Vermont.

Cost adjustments increased the range between the lowest-variation and highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.23 in Kentucky to 1.65 in Vermont. Cost adjustments had the largest effect on variation in Georgia (ranked 41 before and 20 after cost adjustments) and Oklahoma (ranked 8 before and 26 after cost adjustments).

Coefficient of Variation

Nationally, the coefficient of variation for unadjusted state and local revenues per pupil was 0.27 (table 4-2). This means that approximately two-thirds of the districts nationally have state and local revenues per pupil between $4822 and $8,390, a range that is from 27 percent below the mean to 27 percent above the mean. Variation across the states ranged from a low of 0.07 in Kentucky to a high of 0.32 in Vermont. Four states (Alaska, Illinois, Montana, and Vermont) had a coefficient of variation higher than the coefficient for the United States.

After cost adjustments to state and local revenues, the United States coefficient of variation for state and local revenues per pupil decreased to 0.23 (table 4-3). Seven states (Alaska, Illinois, Montana, New Hampshire, North Dakota, Texas, and Vermont) exceeded the United States coefficient after cost adjustments. Cost adjustments increased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from a low of 0.06 in Kentucky to a high of 0.35 in Vermont.

Gini Coefficient

Nationally, the Gini coefficient for unadjusted state and local revenues per pupil across the United States was 0.13 (table 4-2). A Gini coefficient of 0 means revenues are distributed equally; higher values such as 0.13 imply revenues are more concentrated among a smaller share of students. Variation across the states ranged from a low of 0.03 in Nevada to a high of 0.17 in Vermont. Two states (Illinois and Vermont) had a Gini coefficient higher than the coefficient for the United States.

Cost-of-education adjustments decreased the national Gini coefficient to 0.12 (table 4-3). Illinois and Vermont still exceeded the United States level of variation, and New Hampshire and Montana joined the group. Cost adjustments had no effect on the range of variation. After adjustments, the Gini coefficient still ranged from a low of 0.03 in Nevada to a high of 0.17 in Vermont.

Table 4-2. Variation in state and local revenues per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	1.18	†	0.27	†	0.13	†	†	†
Alabama	0.39	15	0.14	21	0.06	11	15.67	2
Alaska	0.99	46	0.29	46	0.12	45	45.67	4
Arizona	0.69	35	0.16	27	0.08	26	29.33	3
Arkansas	0.49	25	0.11	8	0.06	11	14.67	2
California	0.46	21	0.14	21	0.07	21	21.00	2
Colorado	0.35	11	0.12	12	0.06	11	11.33	1
Connecticut	0.47	23	0.14	21	0.07	21	21.67	2
Delaware	0.31	5	0.09	2	0.05	4	3.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.26	2	0.09	2	0.05	4	2.67	1
Georgia	0.75	41	0.17	31	0.09	33	35.00	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.51	26	0.15	26	0.08	26	26.00	3
Illinois	1.34	48	0.31	48	0.14	48	48.00	4
Indiana	0.44	18	0.12	12	0.06	11	13.67	2
Iowa	0.27	4	0.10	5	0.04	2	3.67	1
Kansas	0.72	39	0.20	36	0.09	33	36.00	4
Kentucky	0.26	2	0.07	1	0.04	2	1.67	1
Louisiana	0.48	24	0.12	12	0.06	11	15.67	2
Maine	0.59	30	0.17	31	0.08	26	29.00	3
Maryland	0.53	27	0.14	21	0.07	21	23.00	2
Massachusetts	0.65	33	0.18	33	0.10	38	34.67	3
Michigan	0.72	39	0.18	33	0.09	33	35.00	3
Minnesota	0.65	33	0.20	36	0.08	26	31.67	3
Mississippi	0.46	21	0.12	12	0.07	21	18.00	2
Missouri	1.04	47	0.24	44	0.12	45	45.33	4
Montana	0.97	45	0.29	46	0.13	47	46.00	4
Nebraska	0.54	29	0.16	27	0.08	26	27.33	3
Nevada	0.18	1	0.09	2	0.03	1	1.33	1
New Hampshire	0.85	43	0.22	41	0.11	42	42.00	4
New Jersey	0.62	31	0.16	27	0.09	33	30.33	3
New Mexico	0.69	35	0.18	33	0.08	26	31.33	3
New York	0.77	42	0.23	43	0.11	42	42.33	4
North Carolina	0.35	11	0.11	8	0.06	11	10.00	1
North Dakota	0.64	32	0.22	41	0.10	38	37.00	4
Ohio	0.71	37	0.20	36	0.10	38	37.00	4
Oklahoma	0.34	8	0.12	12	0.05	4	8.00	1
Oregon	0.36	13	0.13	20	0.06	11	14.67	2
Pennsylvania	0.53	27	0.16	27	0.09	33	29.00	3
Rhode Island	0.32	6	0.10	5	0.05	4	5.00	1
South Carolina	0.40	16	0.12	12	0.07	21	16.33	2
South Dakota	0.32	6	0.11	8	0.05	4	6.00	1
Tennessee	0.41	17	0.12	12	0.06	11	13.33	2
Texas	0.45	20	0.24	44	0.08	26	30.00	3
Utah	0.34	8	0.14	21	0.06	11	13.33	2
Vermont	1.42	49	0.32	49	0.17	49	49.00	4
Virginia	0.71	37	0.21	40	0.11	42	39.67	4
Washington	0.44	18	0.12	12	0.06	11	13.67	2
West Virginia	0.34	8	0.11	8	0.05	4	6.67	1
Wisconsin	0.36	13	0.10	5	0.05	4	7.33	1
Wyoming	0.86	44	0.20	36	0.10	38	39.33	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33), School Year 1997–98."

Table 4-3. Variation in state and local revenues per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	0.95	†	0.23	†	0.12	†	†	†
Alabama	0.39	14	0.13	18	0.06	11	14.33	2
Alaska	0.92	43	0.26	45	0.12	45	44.33	4
Arizona	0.81	41	0.18	33	0.08	29	34.33	3
Arkansas	0.39	14	0.10	4	0.05	5	7.67	1
California	0.49	27	0.14	21	0.07	21	23.00	2
Colorado	0.46	23	0.15	23	0.06	11	19.00	2
Connecticut	0.60	30	0.15	23	0.08	29	27.33	3
Delaware	0.29	4	0.08	2	0.04	2	2.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.24	2	0.08	2	0.04	2	2.00	1
Georgia	0.44	20	0.12	12	0.06	11	14.33	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.58	29	0.16	27	0.08	29	28.33	3
Illinois	1.21	47	0.27	46	0.13	46	46.33	4
Indiana	0.37	11	0.10	4	0.05	5	6.67	1
Iowa	0.31	6	0.12	12	0.05	5	7.67	1
Kansas	0.71	36	0.23	42	0.11	40	39.33	4
Kentucky	0.23	1	0.06	1	0.04	2	1.33	1
Louisiana	0.45	22	0.12	12	0.06	11	15.00	2
Maine	0.74	38	0.20	36	0.09	34	36.00	3
Maryland	0.46	23	0.12	12	0.06	11	15.33	2
Massachusetts	0.63	34	0.19	34	0.10	38	35.33	3
Michigan	0.54	28	0.15	23	0.07	21	24.00	3
Minnesota	0.42	19	0.19	34	0.07	21	24.67	3
Mississippi	0.41	18	0.11	7	0.06	11	12.00	2
Missouri	0.90	42	0.20	36	0.10	38	38.67	3
Montana	1.23	48	0.33	48	0.15	48	48.00	4
Nebraska	0.75	39	0.22	40	0.11	40	39.67	4
Nevada	0.24	2	0.11	7	0.03	1	3.33	1
New Hampshire	1.06	45	0.25	43	0.13	46	44.67	4
New Jersey	0.62	32	0.16	27	0.08	29	29.33	3
New Mexico	1.19	46	0.21	38	0.09	34	39.33	4
New York	0.73	37	0.22	40	0.11	40	39.00	4
North Carolina	0.36	10	0.11	7	0.05	5	7.33	1
North Dakota	0.80	40	0.25	43	0.11	40	41.00	4
Ohio	0.60	30	0.17	32	0.08	29	30.33	3
Oklahoma	0.48	26	0.16	27	0.07	21	24.67	3
Oregon	0.29	4	0.15	23	0.06	11	12.67	2
Pennsylvania	0.44	20	0.13	18	0.07	21	19.67	2
Rhode Island	0.38	13	0.12	12	0.07	21	15.33	2
South Carolina	0.34	9	0.11	7	0.06	11	9.00	1
South Dakota	0.47	25	0.14	21	0.07	21	22.33	2
Tennessee	0.33	7	0.10	4	0.05	5	5.33	1
Texas	0.64	35	0.28	47	0.09	34	38.67	3
Utah	0.39	14	0.16	27	0.07	21	20.67	2
Vermont	1.65	49	0.35	49	0.17	49	49.00	4
Virginia	0.62	32	0.16	27	0.09	34	31.00	3
Washington	0.40	17	0.13	18	0.06	11	15.33	2
West Virginia	0.33	7	0.12	12	0.05	5	8.00	1
Wisconsin	0.37	11	0.11	7	0.06	11	9.67	1
Wyoming	0.94	44	0.21	38	0.11	40	40.67	4

†Not applicable.

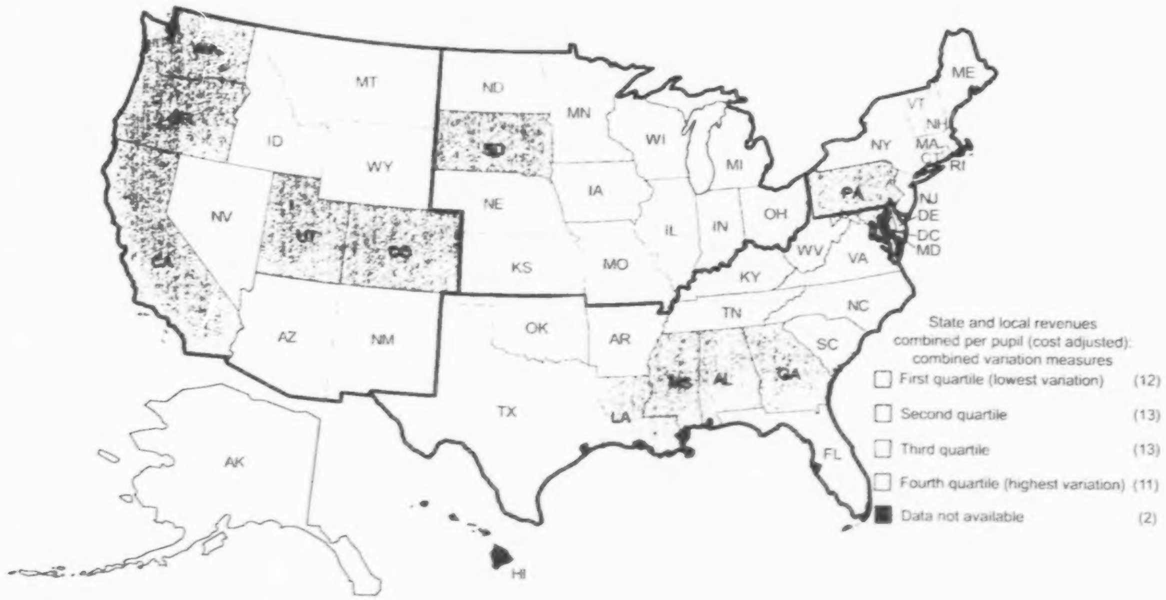
[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Overall Variation

In a synthesis of the three variation measures, variation was high in the Northeast and Midwest and low in the South (figure 4-1). Three-quarters (78 percent) of Northeastern states and two-thirds (67 percent) of Midwestern states were in the two quartiles with highest variation in state and local revenues per pupil, both before and after cost adjustments (table 4-4). In contrast, 81 percent of Southern states were in the two quartiles with least variation, both before and after cost adjustments.

Figure 4-1. Synthesis of variation measures of state and local revenues per pupil (cost-adjusted dollars), by state: 1997–98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State and local revenues combined per pupil (cost adjusted): combined variation measures
First quartile (lowest variation) (12)
Second quartile (13)
Third quartile (13)
Fourth quartile (highest variation) (11)
Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 4-4. Variation in state and local revenues per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted state and local revenues per pupil		
Northeast	22	78
Midwest	33	67
South	81	19
West	50	50
Cost-adjusted state and local revenues per pupil		
Northeast	22	78
Midwest	33	67
South	81	19
West	50	50

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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Relationship between State and Local Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, state and local revenues per pupil in unadjusted dollars showed a moderate, positive relationship with a school district's median household income (+0.39) and its median value owner-occupied housing (+0.32) (table A-17). At the state level, median value owner-occupied housing was positively related to state and local revenues per pupil in over half of the 40 states with available data (table 4-5). This relationship was strongly positive in seven states (Alabama, Florida, Illinois, Maryland, Michigan, Pennsylvania, and Virginia). Similarly, median household income was positively related to state and local revenues per pupil in nearly half of the states with available data. This relationship was strongly positive in seven states (Alabama, Louisiana, Maryland, Michigan, New York, Pennsylvania, and Virginia). Nine of the 40 states with available data showed no statistically significant relationship between district housing values and state and local revenues per pupil, while 18 states showed no relationship between district income and combined revenues. Four states (Alaska, Montana, Nebraska, and North Dakota) showed a moderate negative relationship with district housing values, while two states (Nebraska and Utah) showed a similar relationship with district income. Only one state (Nevada) had a strong negative relationship between housing values and state and local revenues; no states had a similar relationship with district income.

After cost adjustments, the strength of the national relationship between state and local revenues per pupil and housing value (+0.03) decreased, as did the relationship between state and local revenues per pupil and household income (+0.17) (table A-18). Adjusted state and local revenues per pupil continued to show a strong positive relationship with a district's median value owner-occupied housing in only three states (Maryland, Michigan, and Virginia) and a moderate positive relationship in only seven other states (Alabama, Florida, Illinois, Massachusetts, Ohio, Pennsylvania, and Rhode Island) (figure 4-2). Two states (Maryland and New York) showed a strong positive relationship between a district's median household income and adjusted state and local revenues per pupil, and eight states (Alabama, Connecticut, Illinois, Louisiana, Michigan, Ohio, Pennsylvania, and Virginia) showed a moderate positive relationship between these variables (figure 4-3). Nevada continued to be the only state with a strong negative relationship with median value owner-occupied housing, while nine states (Alaska, California, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, and North Dakota) showed a moderate negative relationship between state and local revenues and district housing values. Nine states (California, Iowa, Kansas, Massachusetts, Minnesota, Missouri, Nebraska, Tennessee, and Utah) showed a similar relationship with district income.

State and local revenues per pupil showed a weak negative relationship with minority enrollment for the United States as a whole before cost adjustments (-0.04) and a moderate negative relationship after cost adjustments (-0.16). Three states (Alaska, Massachusetts, and Missouri) showed a strong positive relationship between minority enrollment and state and local revenues per pupil before cost adjustments, while two states (Alaska and Massachusetts) showed this relationship after cost adjustments (figure 4-4). New York was the only state to show a strong negative relationship between minority enrollment and state and local revenues per pupil, and this was after cost adjustments only.

Nationally, the district percent of school-age children in poverty showed a moderate negative relationship with state and local revenues per pupil, both before (-0.22) and after (-0.16) cost adjustments. No states showed a strong positive relationship between children in poverty and state and local revenues per pupil before or after cost adjustments. Only one state (New York) showed a strong negative relationship, both before and after cost adjustments (figure 4-5).

Table 4-5. Correlations between state and local revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Massachusetts, Missouri	Alaska, Massachusetts
Moderate positive relationship	California, Indiana, Minnesota, Ohio, Oregon, Tennessee, Washington	Minnesota, Missouri,[1] Ohio, Oregon
Weak positive relationship	[none]	[none]
Weak negative relationship	Illinois, *US overall*	[none]
Moderate negative relationship	Alabama, Kansas, Nebraska, New Hampshire, New York, North Dakota, Pennsylvania, Texas	Alabama, Illinois,[1] Iowa,[1] Kansas, Louisiana,[1] Nebraska, New Hampshire, North Dakota, Pennsylvania, Texas, Wisconsin,[1] *US overall*[1]
Strong negative relationship	[none]	New York[1]
No significant relationship	Arizona, Connecticut, Delaware, Florida, Idaho, Iowa, Louisiana, Maine, Maryland, Michigan, Montana, Nevada, North Carolina, Rhode Island, South Carolina, Utah, Vermont, Virginia, West Virginia, Wisconsin, Wyoming	Arizona, California,[1] Connecticut, Delaware, Florida, Idaho, Indiana,[1] Maine, Maryland, Michigan, Montana, Nevada, North Carolina, Rhode Island, South Carolina, Tennessee,[1] Utah, Vermont, Virginia, Washington,[1] West Virginia, Wyoming
School-age children in poverty		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Alaska, Massachusetts, Minnesota, Missouri, Utah	Alaska, California,[1] Massachusetts, Minnesota, Missouri, Tennessee,[1] Utah, Washington[1]
Weak positive relationship	[none]	[none]
Weak negative relationship	Texas	[none]
Moderate negative relationship	Alabama, Illinois, Louisiana, Michigan, New Hampshire, Pennsylvania, Virginia, Washington, *US overall*	Alabama, Illinois, Louisiana, Maryland,[1] Michigan, Pennsylvania, Virginia, Wisconsin,[1] *US overall*
Strong negative relationship	New York	New York
No significant relationship	Arizona, California, Connecticut, Delaware, Florida, Idaho, Indiana, Iowa, Kansas, Maine, Maryland, Montana, Nebraska, Nevada, North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Carolina, Tennessee, Vermont, West Virginia, Wisconsin, Wyoming	Arizona, Connecticut, Delaware, Florida, Idaho, Indiana, Iowa, Kansas, Maine, Montana, Nebraska, Nevada, New Hampshire,[1] North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Carolina, Texas,[1] Vermont, West Virginia, Wyoming
Median household income		
Strong positive relationship	Alabama, Louisiana, Maryland, Michigan, New York, Pennsylvania, Virginia	Maryland, New York
Moderate positive relationship	Arizona, Connecticut, Florida, Illinois, Indiana, Iowa, North Carolina, Ohio, South Carolina, Washington, Wisconsin, *US overall*	Alabama,[1] Connecticut, Illinois, Louisiana,[1] Michigan,[1] Ohio, Pennsylvania,[1] Virginia,[1] *US overall*
Weak positive relationship	Missouri, Texas	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Nebraska, Utah	California,[1] Iowa,[1] Kansas,[1] Massachusetts,[1] Minnesota,[1] Missouri,[1] Nebraska, Tennessee,[1] Utah
Strong negative relationship	[none]	[none]
No significant relationship	Alaska, California, Delaware, Idaho, Kansas, Maine, Massachusetts, Minnesota, Montana, Nevada, New Hampshire, North Dakota, Oregon, Rhode Island, Tennessee, Vermont, West Virginia, Wyoming	Alaska, Arizona,[1] Delaware, Florida,[1] Idaho, Indiana,[1] Maine, Montana, Nevada, New Hampshire, North Carolina,[1] North Dakota, Oregon, Rhode Island, South Carolina,[1] Texas,[1] Vermont, Washington,[1] West Virginia, Wisconsin,[1] Wyoming
Median value owner-occupied housing		
Strong positive relationship	Alabama, Florida, Illinois, Maryland, Michigan, Pennsylvania, Virginia	Maryland, Michigan, Virginia
Moderate positive relationship	Arizona, California, Idaho, Indiana, Louisiana, Maine, Massachusetts, Minnesota, Missouri, New Hampshire, New York, North Carolina, Ohio, South Carolina, Tennessee, Texas, Vermont, Washington, Wisconsin, *US overall*	Alabama,[1] Florida,[1] Illinois,[1] Massachusetts, Ohio, Pennsylvania,[1] Rhode Island[1]
Weak positive relationship	[none]	*US overall*[1]
Weak negative relationship	[none]	California[1]
Moderate negative relationship	Alaska, Montana, Nebraska, North Dakota	Alaska, Iowa,[1] Kansas,[1] Minnesota,[1] Missouri,[1] Montana, Nebraska, North Dakota
Strong negative relationship	Nevada	Nevada

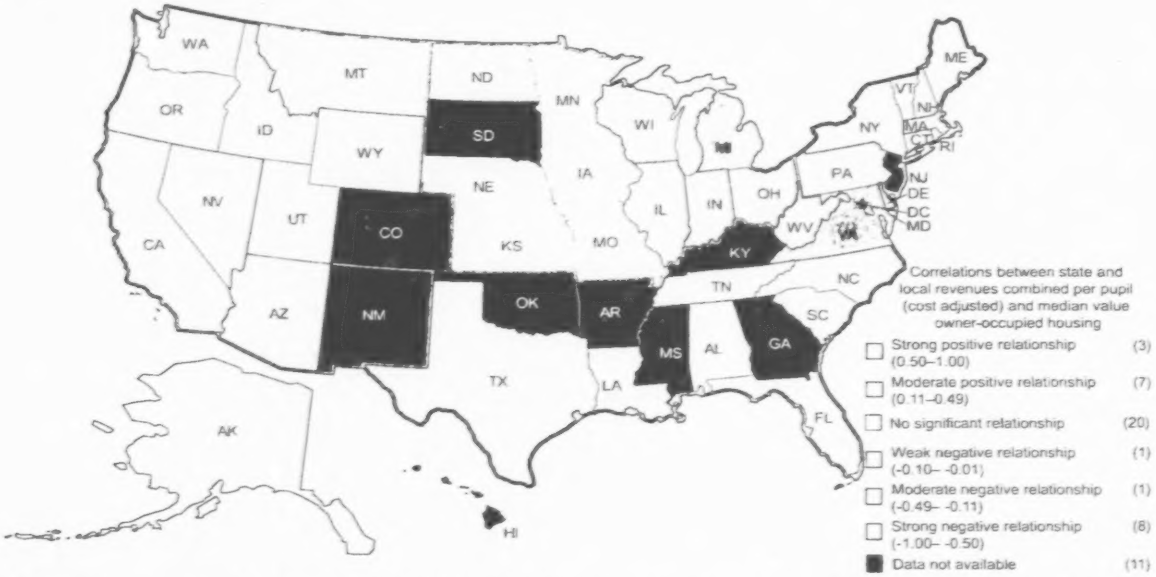
Table 4-5. Correlations between state and local revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Median value owner-occupied housing (Continued)		
No significant relationship	Connecticut, Delaware, Iowa, Kansas, Oregon, Rhode Island, Utah, West Virginia, Wyoming	Arizona,[1] Connecticut, Delaware, Idaho,[1] Indiana,[1] Louisiana,[1] Maine,[1] New Hampshire,[1] New York,[1] North Carolina,[1] Oregon, South Carolina,[1] Tennessee,[1] Texas,[1] Utah, Vermont,[1] Washington,[1] West Virginia, Wisconsin,[1] Wyoming

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-2. Correlations between state and local revenues per pupil and median value owner-occupied housing (cost-adjusted dollars), by state: 1997–98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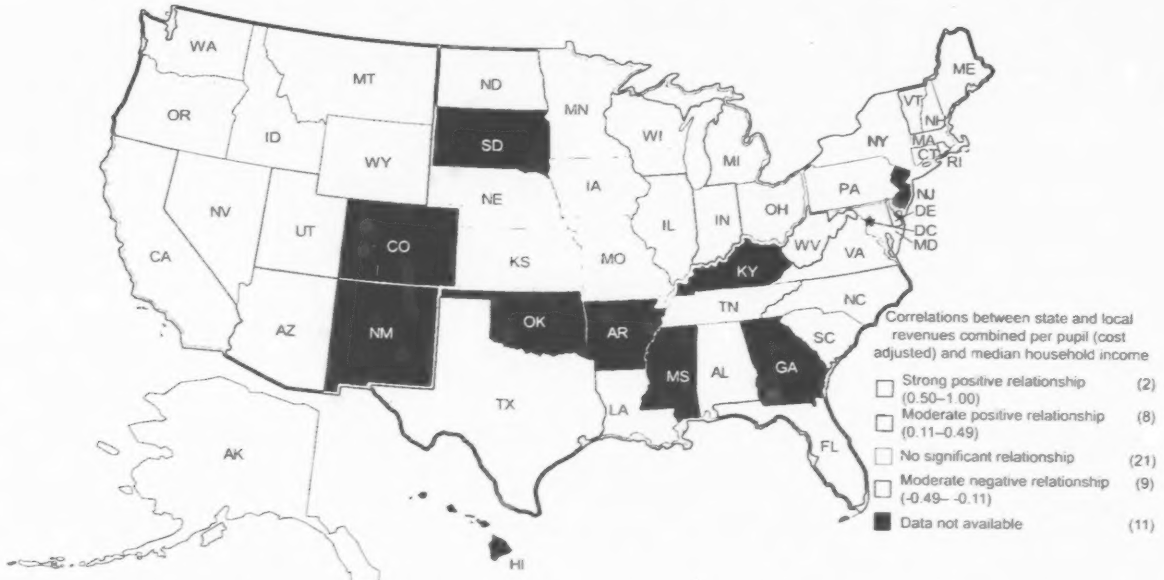
Correlations between state and local revenues combined per pupil (cost adjusted) and median value owner-occupied housing
☐ Strong positive relationship (0.50–1.00) (3)
☐ Moderate positive relationship (0.11–0.49) (7)
☐ No significant relationship (20)
☐ Weak negative relationship (-0.10– -0.01) (1)
☐ Moderate negative relationship (-0.49– -0.11) (1)
☐ Strong negative relationship (-1.00– -0.50) (8)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-3. Correlations between state and local revenues per pupil and median household income (cost-adjusted dollars), by state: 1997–98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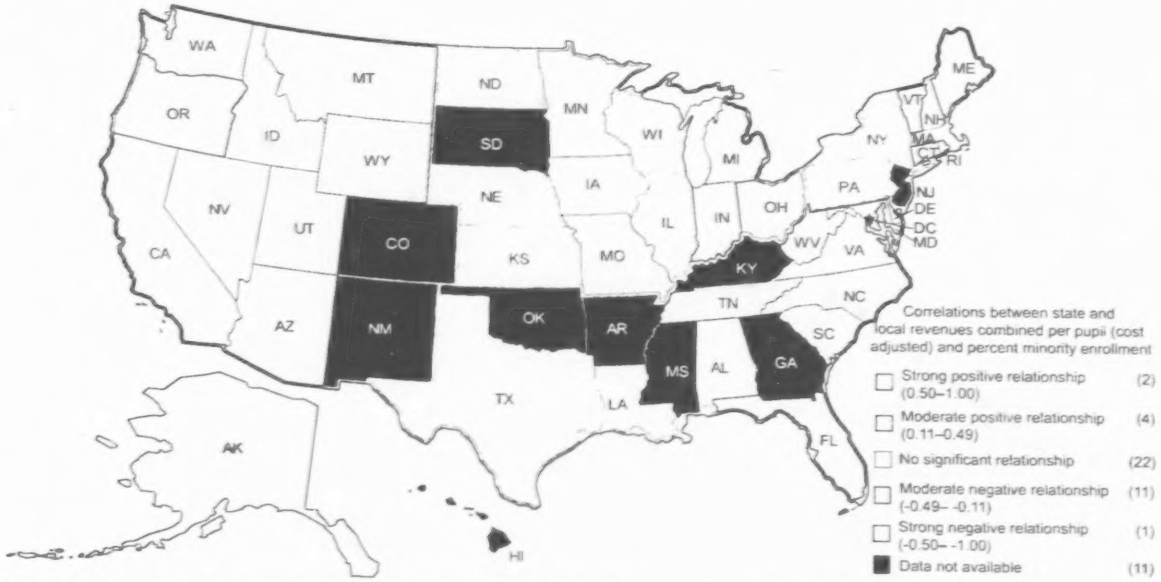
Correlations between state and local revenues combined per pupil (cost adjusted) and median household income
☐ Strong positive relationship (0.50–1.00) (2)
☐ Moderate positive relationship (0.11–0.49) (8)
☐ No significant relationship (21)
☐ Moderate negative relationship (-0.49– -0.11) (9)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-4. Correlations between state and local revenues per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98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Correlations between state and local revenues combined per pupil (cost adjusted) and percent minority enrollment
☐ Strong positive relationship (0.50–1.00) (2)
☐ Moderate positive relationship (0.11–0.49) (4)
☐ No significant relationship (22)
☐ Moderate negative relationship (-0.49– -0.11) (11)
☐ Strong negative relationship (-0.50– -1.00) (1)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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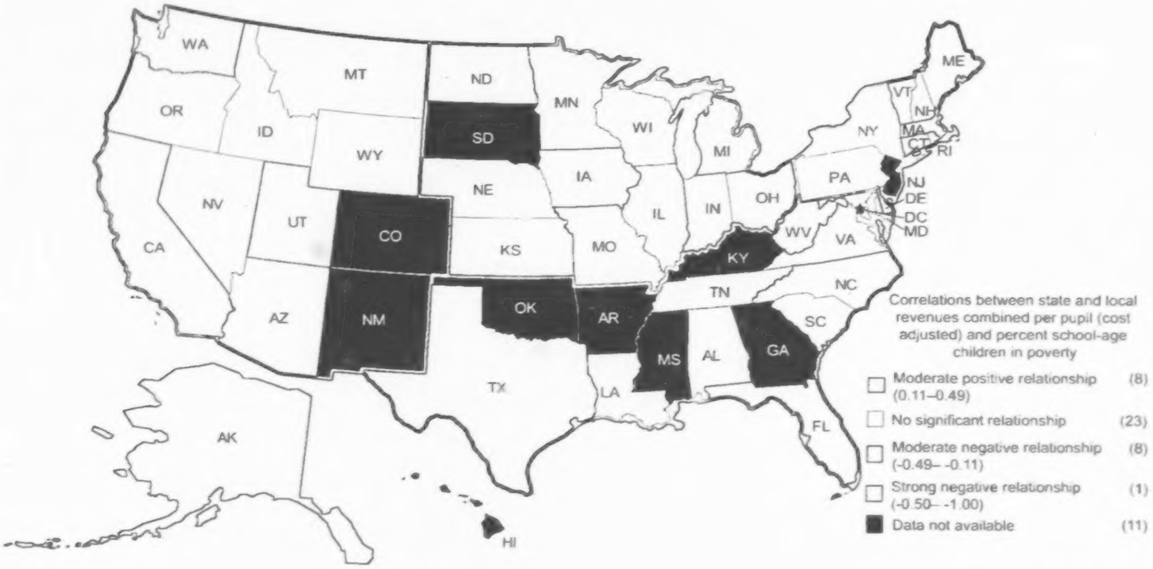
Figure 4-5. Correlations between state and local revenues per pupil and percent school-age children in poverty (cost-adjusted dollars), by state: 1997–98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HI
Correlations between state and local revenues combined per pupil (cost adjusted) and percent school-age children in poverty
☐ Moderate positive relationship (0.11–0.49) (8)
☐ No significant relationship (23)
☐ Moderate negative relationship (-0.49– -0.11) (8)
☐ Strong negative relationship (-0.50– -1.00) (1)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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Chapter 5: Federal Revenues

Federal Revenues

Federal revenues for public elementary and secondary education totaled $20.1 billion in 1997–98 (table 5-1). This was approximately 6.3 percent of total district revenues ($321.6 billion) in 1997–98. Just over 34 percent of federal revenues came from Title I allocations ($6.9 billion) (table 5-6), with the rest coming from other federal sources.

Federal Revenues Per Pupil

Federal revenues per pupil in the United States averaged $441 in 1997–98 before cost adjustments (table 5-1). Federal revenues per pupil were highest in the South ($482) and lowest in the Midwest ($378). At $455 per pupil, federal revenues in the West were higher than in the Northeast ($422). The use of cost adjustments increased the range between the highest and lowest regions from $104 to $143 and the ratio of revenues per pupil from 1.3 to 1.4 to 1. The South remained the region with the highest per pupil revenues at $523, but the Northeast replaced the Midwest as the region with lowest federal revenues per pupil at $380.

The smallest and largest districts had the most federal revenues per pupil, both before and after cost adjustments. Mid-sized districts averaged smaller federal revenues per pupil. Before cost adjustments, federal revenues per pupil averaged $439 in districts with fewer than 1,000 students and $490 in districts with 10,000 or more students, compared to $384 and $388 in the respective mid-ranges. After cost adjustments, federal revenues per pupil averaged $499 in the smallest districts and $478 in the largest, compared to $410 and $397 in the mid-sized districts. The difference between the smallest and the largest revenues per pupil decreased from $106 to $102 per pupil. Correlation analysis showed no significant relationship between district enrollment and federal revenues per pupil, either before or after cost adjustments (tables A-1 and A-2).

Before cost adjustments, federal revenues per pupil showed negative relationships with two measures of district wealth—median household income (-0.46) and median value owner-occupied housing (-0.15) (table A-19). In other words, districts in areas with stronger economic bases tended to have less revenue from federal sources than districts in poorer areas (table 5-1). School districts with median household income at or above $35,000 had average federal revenues per pupil of $228, while districts with median household incomes below $20,000 had revenues per pupil of $806. Similarly, districts with median housing values at or above $85,000 had average federal revenues of $367 per pupil, while districts with median housing values below $40,000 had federal revenues per pupil of $658.

The relationship was stronger after cost adjustments. Cost adjustments increased the range on federal revenues per pupil between districts with the highest and lowest wealth from $578 to $671 between districts with the highest and lowest median household incomes, and from $291 to $394 between districts with the highest and lowest median housing values. The ratios were increased from 3.5 to 4.2 to

Table 5-1. Federal revenues, cost-adjusted federal revenues, federal revenues per pupil, and cost-adjusted federal revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	Federal revenues (in thousands)	Cost-adjusted federal revenues (in thousands)	Federal revenues per pupil	Cost-adjusted federal revenues per pupil
All districts	$20,132,950	$20,355,036	$441	$447
Region				
Northeast	3,343,736	3,008,403	422	380
Midwest	4,016,618	4,120,249	378	390
South	7,949,168	8,624,678	482	523
West	4,823,428	4,601,706	455	436
District enrollment				
0–999	1,193,349	1,337,993	439	499
1,000–4,999	4,983,611	5,300,435	384	410
5,000–9,999	2,738,913	2,792,358	388	397
10,000 or more	11,217,077	10,924,250	490	478
Minority enrollment				
Less than 5 percent	3,132,661	3,334,244	277	295
5 percent–<20 percent	3,812,046	3,916,962	318	326
20 percent–<50 percent	6,502,154	6,588,049	507	513
50 percent or more	5,594,571	5,351,194	785	751
Data missing	1,091,518	1,164,587	—	—
School-age children in poverty				
Less than 5 percent	810,299	754,356	157	146
5 percent–<15 percent	4,357,449	4,356,757	281	281
15 percent–<25 percent	5,648,124	5,862,632	477	495
25 percent or more	8,225,560	8,216,703	765	764
Data missing	1,091,518	1,164,587	—	—
Median household income				
Less than $20,000	2,768,492	3,049,104	806	881
$20,000–<$25,000	4,725,374	4,993,837	563	595
$25,000–<$30,000	5,720,157	5,654,393	510	504
$30,000–<$35,000	2,932,095	2,845,348	388	376
$35,000 or more	2,875,314	2,647,768	228	210
Data missing	1,091,518	1,164,587	—	—
Median value owner-occupied housing				
Less than $40,000	2,406,679	2,662,942	658	728
$40,000–<$55,000	4,177,120	4,475,055	534	572
$55,000–<$85,000	6,093,245	6,265,662	422	434
$85,000 or more	6,364,388	5,786,789	367	334
Data missing	1,091,518	1,164,587	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

1 for median household income and from 1.8 to 2.2 to 1 for median value owner-occupied housing. The correlation between adjusted federal revenues per pupil and median household income was -0.50 and median value owner-occupied housing was -0.23 (table A-20).

Federal revenues per pupil showed a positive relationship with two district demographic characteristics—percent minority enrollment and percent school-age children living in poverty—both before and after cost adjustments. Before adjustments, school districts with the highest minority enrollments also had the highest federal revenues per pupil, and districts with the lowest minority enrollments had the lowest—$785 and $277, respectively. After adjustments, the range between the lowest- and highest-minority districts decreased—from $508 to $456. Correlation analysis also showed a positive relationship between federal revenues per pupil and percent minority enrollment, both before (+0.56) and after (+0.49) cost adjustments.

Federal revenues per pupil were lowest in the lowest-poverty districts and highest in the highest-poverty districts both before and after cost adjustments—$157 and $765, respectively, before cost adjustments, and $146 and $764 respectively, after cost adjustments. Correlation analysis also demonstrated that districts with greater poverty tended to have more revenues per pupil from federal sources, both before (+0.66) and after (+0.65) cost adjustments.

Variations in Federal Revenues Per Pupil

Restricted Range Ratio

The restricted range ratio for unadjusted federal revenues per pupil across the United States was 7.13 (table 5-2).[12] Variation in the states ranged from 0.49 in Nevada to 15.38 in Connecticut and two very high values in Montana (43.43) and in New Hampshire (94.68). Fourteen states had a restricted range ratio higher than that for the United States. (The restricted range ratio could not be calculated for federal revenues in Vermont because the fifth percentile—by which the difference was divided—was equal to zero.)

When cost adjustments were applied, the restricted range ratio for federal revenues per pupil across the United States increased to 7.54 (table 5-3). Thirteen states exceeded the national variation after cost adjustments. Cost adjustments decreased the range between the lowest-variation and highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.49 in Nevada to 14.80 in Connecticut, with high values in Montana (37.32) and New Hampshire (92.62).[13]

Coefficient of Variation

The coefficient of variation for unadjusted federal revenues per pupil across the United States was 0.79 (table 5-2). Variation in the states ranged from 0.24 in Florida to 2.37 in Minnesota. Seventeen states had a coefficient of variation higher than that for the United States.

When federal revenues were adjusted for cost of education differences, the coefficient of variation for federal revenues per pupil across the United States rose to 0.81 (table 5-3). Fourteen states exceeded the national variation after cost adjustments. Cost adjustments increased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.25 in Florida to 2.65 in Minnesota.

Gini Coefficient

The Gini coefficient for unadjusted federal revenues per pupil across the United States was 0.34 (table 5-2). Variation in the states ranged from 0.08 in Nevada to 0.55 in Montana. Nineteen states had a Gini coefficient higher than that for the United States.

Cost-of-education adjustments had no effect on the Gini coefficient across the United States; it remained 0.34 (table 5-3). Again, 19 states exceeded the United States level of variation. Cost adjust-

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[12] The range across the states excludes Vermont, where the restricted range ratio was infinity.

[13] See footnote 12 above.

Table 5-2. Variation in federal revenues per pupil (unadjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	7.13	†	0.79	†	0.34	†	†	†
Alabama	2.13	6	0.38	8	0.20	7	7.00	1
Alaska	10.15	42	1.27	42	0.48	46	43.33	4
Arizona	7.08	34	1.36	44	0.46	43	40.33	4
Arkansas	2.95	13	0.50	14	0.24	14	13.67	1
California	4.56	24	0.53	16	0.28	20	20.00	2
Colorado	5.05	27	0.71	29	0.33	28	28.00	3
Connecticut	15.38	46	0.98	36	0.48	46	42.67	4
Delaware	3.26	15	0.59	21	0.22	11	15.67	2
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.00	2	0.24	1	0.13	2	1.67	1
Georgia	3.64	18	0.49	13	0.27	17	16.00	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	3.29	16	0.55	17	0.23	12	15.00	2
Illinois	14.11	45	0.79	32	0.43	40	39.00	4
Indiana	9.10	39	0.68	26	0.37	32	32.33	3
Iowa	3.51	17	0.42	11	0.23	12	13.33	1
Kansas	8.38	38	1.02	39	0.40	36	37.67	4
Kentucky	2.88	12	0.39	10	0.21	9	10.33	1
Louisiana	1.43	3	0.25	2	0.14	3	2.67	1
Maine	4.22	23	1.31	43	0.31	22	29.33	3
Maryland	3.93	22	0.57	19	0.27	17	19.33	2
Massachusetts	3.90	21	0.56	18	0.31	22	20.33	2
Michigan	11.94	44	0.85	34	0.43	40	39.33	4
Minnesota	5.09	28	2.37	49	0.42	39	38.67	4
Mississippi	2.68	11	0.38	8	0.21	9	9.33	1
Missouri	7.04	33	0.68	26	0.34	30	29.67	3
Montana	43.43	47	1.77	47	0.55	49	47.67	4
Nebraska	4.95	26	1.04	40	0.39	34	33.33	3
Nevada	0.49	1	0.28	4	0.08	1	2.00	1
New Hampshire	94.68	48	0.57	19	0.31	22	29.67	3
New Jersey	9.25	40	0.91	35	0.41	37	37.33	3
New Mexico	8.02	36	0.99	37	0.39	34	35.67	3
New York	6.48	32	0.60	22	0.33	28	27.33	3
North Carolina	1.80	5	0.33	6	0.18	5	5.33	1
North Dakota	4.66	25	2.18	48	0.46	43	38.67	4
Ohio	10.08	41	0.77	31	0.41	37	36.33	3
Oklahoma	5.72	30	0.65	25	0.31	22	25.67	2
Oregon	3.65	19	0.46	12	0.25	16	15.67	2
Pennsylvania	11.48	43	0.81	33	0.43	40	38.67	4
Rhode Island	5.34	29	0.68	26	0.36	31	28.67	3
South Carolina	2.48	10	0.37	7	0.20	7	8.00	1
South Dakota	7.96	35	1.57	46	0.46	43	41.33	4
Tennessee	2.20	8	0.32	5	0.18	5	6.00	1
Texas	6.22	31	0.63	23	0.31	22	25.33	2
Utah	2.15	7	0.63	23	0.24	14	14.67	2
Vermont	(2)	(2)	1.13	41	0.53	48	44.50	4
Virginia	3.09	14	0.51	15	0.27	17	15.33	2
Washington	3.79	20	0.75	30	0.32	27	25.67	2
West Virginia	2.20	8	0.26	3	0.14	3	4.67	1
Wisconsin	8.11	37	0.99	37	0.38	33	35.67	3
Wyoming	1.65	4	1.53	45	0.29	21	23.33	2

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for federal revenues in Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 5-3. Variation in federal revenues per pupil (cost-adjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	7.54	†	0.81	†	0.34	†	†	†
Alabama	2.45	8	0.40	9	0.21	7	8.00	1
Alaska	10.69	42	1.30	43	0.48	46	43.67	4
Arizona	7.26	34	1.42	44	0.47	43	40.33	4
Arkansas	3.01	12	0.53	14	0.25	15	13.67	1
California	4.89	25	0.55	16	0.28	19	20.00	2
Colorado	5.38	29	0.70	29	0.33	27	28.33	3
Connecticut	14.80	46	0.96	37	0.47	43	42.00	4
Delaware	3.52	16	0.62	23	0.24	12	17.00	2
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	1.07	2	0.25	1	0.13	2	1.67	1
Georgia	4.41	22	0.54	15	0.29	21	19.33	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	3.43	15	0.57	19	0.24	12	15.33	2
Illinois	14.13	45	0.77	32	0.42	40	39.00	4
Indiana	8.97	39	0.66	26	0.36	32	32.33	3
Iowa	3.79	18	0.42	11	0.23	11	13.33	1
Kansas	9.00	40	0.98	38	0.39	36	38.00	4
Kentucky	3.36	14	0.41	10	0.22	9	11.00	1
Louisiana	1.56	3	0.27	2	0.14	3	2.67	1
Maine	4.85	24	0.56	17	0.28	19	20.00	2
Maryland	3.71	17	0.56	17	0.27	17	17.00	2
Massachusetts	4.10	20	0.57	19	0.31	23	20.67	2
Michigan	11.33	43	0.79	33	0.41	38	38.00	4
Minnesota	4.59	23	2.65	49	0.43	41	37.67	4
Mississippi	2.97	11	0.39	7	0.22	9	9.00	1
Missouri	7.45	35	0.67	28	0.34	30	31.00	3
Montana	37.32	47	1.78	47	0.55	49	47.67	4
Nebraska	5.20	27	1.07	41	0.37	33	33.67	3
Nevada	0.49	1	0.30	4	0.08	1	2.00	1
New Hampshire	92.62	48	0.60	22	0.32	24	31.33	3
New Jersey	8.82	38	0.92	36	0.41	38	37.33	3
New Mexico	5.90	30	0.99	39	0.37	33	34.00	3
New York	7.09	33	0.59	21	0.32	24	26.00	2
North Carolina	2.10	6	0.36	6	0.19	5	5.67	1
North Dakota	5.20	27	2.31	48	0.47	43	39.33	4
Ohio	9.73	41	0.75	31	0.40	37	36.33	3
Oklahoma	6.78	32	0.70	29	0.33	27	29.33	3
Oregon	4.09	19	0.49	12	0.25	15	15.33	2
Pennsylvania	11.53	44	0.80	34	0.43	41	39.67	4
Rhode Island	5.18	26	0.66	26	0.35	31	27.67	3
South Carolina	2.74	10	0.39	7	0.21	7	8.00	1
South Dakota	8.45	37	1.65	46	0.48	46	43.00	4
Tennessee	2.68	9	0.34	5	0.19	5	6.33	1
Texas	6.43	31	0.65	24	0.32	24	26.33	2
Utah	2.03	5	0.65	24	0.24	12	13.67	1
Vermont	(2)	(2)	1.13	42	0.52	48	45.00	4
Virginia	3.14	13	0.51	13	0.27	17	14.33	2
Washington	4.33	21	0.80	34	0.33	27	27.33	3
West Virginia	2.29	7	0.27	2	0.15	4	4.33	1
Wisconsin	8.09	36	1.01	40	0.37	33	36.33	3
Wyoming	1.78	4	1.54	45	0.29	21	23.33	2

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for federal revenues in Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

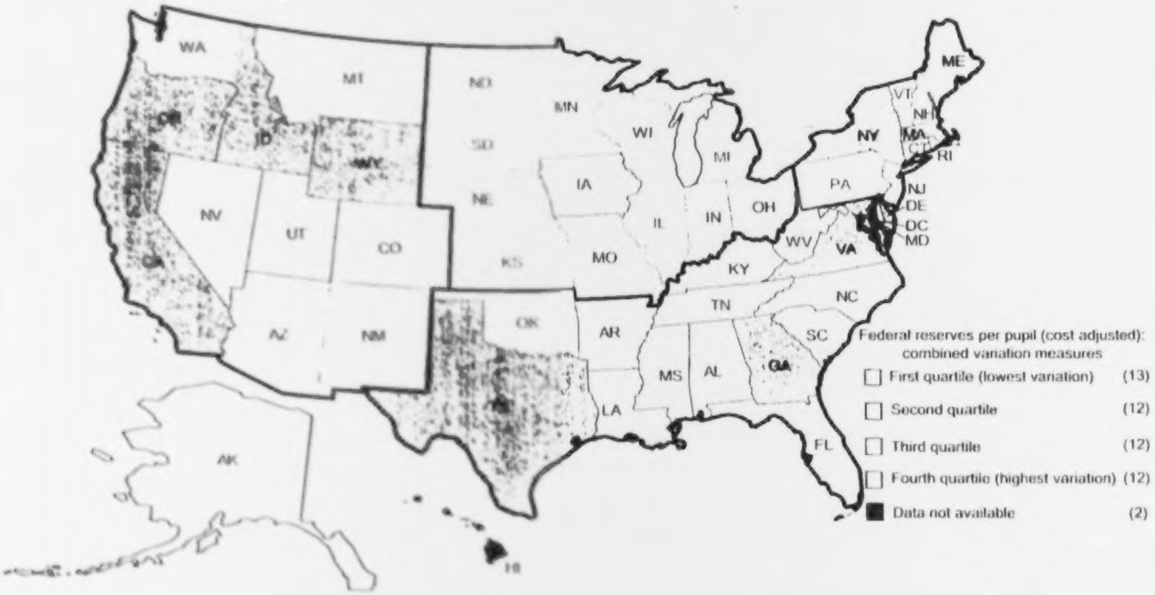
ments had no effect on the range of variation among the states. After adjustments, the Gini coefficient still ranged from 0.08 in Nevada to 0.55 in Montana.

Overall Variation

In a synthesis of the three variation measures of unadjusted federal revenues per pupil, states in the Northeast and Midwest had high interdistrict variation relative to states across the country, and states in the South had low variation (figure 5-1). Half of the Western states were in the two quartiles with lowest variation when ranked with states across the country (table 5-4). Based on cost-adjusted revenues per pupil, nearly all Midwestern states (92 percent) were in the two quartiles with highest variation, and two-thirds of the Northeastern states were in these quartiles (67 percent after cost adjustments). In contrast, nearly all Southern states were in the low-variation quartiles after cost adjustments (94 percent).

In comparing the rankings of states on all three variation measures, both before and after cost adjustments, a large number of states measured differently depending on which measure of variation was used (tables 5-2 and 5-3). Of particular note was Wyoming, which was in the top quartile when measured by the restricted range ratio, the bottom quartile by the Gini coefficient, and in the middle quartiles by the coefficient of variation. Also of interest were Minnesota and New Hampshire, where the restricted range ratio was lower or higher than the other two variation measures, relative to the other states. In the case of Minnesota, where the restricted range ratio was relatively low, this might be the result of several large outliers that were excluded from the restricted range ratio but were included in the other measures. In the case of New Hampshire, where the restricted range ratio was higher, this

Figure 5-1. Synthesis of variation measures of federal revenues per pupil (cost-adjusted dollars), by state: 1997–98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Federal reserves per pupil (cost adjusted): combined variation measures
☐ First quartile (lowest variation) (13)
☐ Second quartile (12)
☐ Third quartile (12)
☐ Fourth quartile (highest variation) (12)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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Table 5-4. Variation in federal revenues per pupil, by region: 1997-98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted federal revenues per pupil		
Northeast	11	89
Midwest	8	92
South	100	0
West	58	42
Cost-adjusted federal revenues per pupil		
Northeast	33	67
Midwest	8	92
South	94	6
West	50	50

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997-98."

could be a result of several districts receiving no federal revenues, thus making the fifth percentile close to zero.

Relationship between Federal Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, federal revenues per pupil in unadjusted dollars showed a negative relationship with a school district's median household income (-0.46) and its median value owner-occupied housing (-0.15) (table A-19). Similarly, at the state level, median value owner-occupied housing was negatively related to federal revenues per pupil in all but seven of the 40 states with available data; there was no significant relationship found in Delaware, Florida, New York, North Dakota, Vermont, or Wyoming, and a weak positive relationship was found in Nebraska (table 5-5). A moderate negative relationship was found in 17 states, while 16 states showed a strong negative relationship between median value owner-occupied housing and federal revenues per pupil. Median household income was more strongly related to federal revenues per pupil. Two states (Delaware and Nevada) showed no statistically significant relationship between district income and federal revenues per pupil, but two-thirds of the states with sufficient data (26) showed a strong negative relationship between income and revenues.

After cost adjustments, there was a stronger negative relationship between district wealth and federal revenues per pupil for the United States as a whole. The cost-adjusted correlation with median value owner-occupied housing was -0.23. The cost-adjusted correlation with median household income was -0.50 (table A-20). After cost adjustments, six states (Delaware, Nebraska, New York, North Dakota, Vermont, and Wyoming) again showed no significant relationship between federal revenues per pupil and median value owner-occupied housing (figure 5-2). Fifteen states showed a moderate negative relationship, but nearly half of the states with sufficient data (19) showed a strong negative relationship between housing value and revenues. Similarly, after cost adjustments only Delaware demonstrated no significant relationship between median household income and federal revenues per pupil, while 28 states demonstrated a strong negative relationship (figure 5-3).

Federal revenues per pupil showed a positive relationship with minority enrollment for the United States as a whole, both before (+0.56) and after (+0.49) cost adjustments. No states demonstrated a negative relationship and four states—Delaware, Maine, Nevada, and West Virginia—showed no significant relationship, both before and after cost adjustments (figure 5-4). Over half of the states (30

Table 5-5. Correlations between federal revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Idaho, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Montana, Nebraska, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Virginia, Washington, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, Connecticut, Idaho, Illinois, Indiana, Maryland, Massachusetts, Michigan, Montana, Nebraska, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Utah, Virginia, Washington, Wisconsin, Wyoming
Moderate positive relationship	Kansas, Minnesota, New Hampshire, Tennessee, Texas, Vermont	California,[1] Florida,[1] Iowa,[1] Kansas, Louisiana,[1] Minnesota, Missouri,[1] New Hampshire, Oregon,[1] Tennessee, Texas, Vermont, *US overall*
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	Delaware, Maine, Nevada, West Virginia	Delaware, Maine, Nevada, West Virginia
School-age children in poverty		
Strong positive relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, California, Connecticut, Florida, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*
Moderate positive relationship	Idaho, Kansas, Maine, Minnesota, Nebraska, Vermont	Idaho, Kansas, Maine, Minnesota, Nebraska, Vermont
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	Delaware, Nevada	Delaware, Nevada
Median household income		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Florida, Idaho, Kansas, Maine, Minnesota, Montana, Nebraska, New Hampshire, North Dakota, Vermont, Wisconsin, Wyoming, *US overall*	Idaho, Kansas, Maine, Minnesota, Montana, Nebraska, Nevada,[1] North Dakota, Vermont, Wisconsin, Wyoming
Strong negative relationship	Alabama, Alaska, Arizona, California, Connecticut, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Missouri, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia	Alabama, Alaska, Arizona, California, Connecticut, Florida,[1] Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Missouri, New Hampshire,[1] New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, *US overall*
No significant relationship	Delaware, Nevada	Delaware
Median value owner-occupied housing		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	Nebraska	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	California, Connecticut, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, Utah, Virginia, Washington, Wisconsin, *US overall*	California, Connecticut, Florida,[1] Idaho, Illinois, Kansas, Maine, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, Utah, Washington, Wisconsin, *US overall*
Strong negative relationship	Alabama, Alaska, Arizona, Iowa, Maryland, Michigan, Nevada, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, West Virginia	Alabama, Alaska, Arizona, Indiana,[1] Iowa, Louisiana,[1] Maryland, Michigan, Nevada, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia,[1] West Virginia
No significant relationship	Delaware, Florida, New York, North Dakota, Vermont, Wyoming	Delaware, Nebraska,[1] New York, North Dakota, Vermont, Wyoming

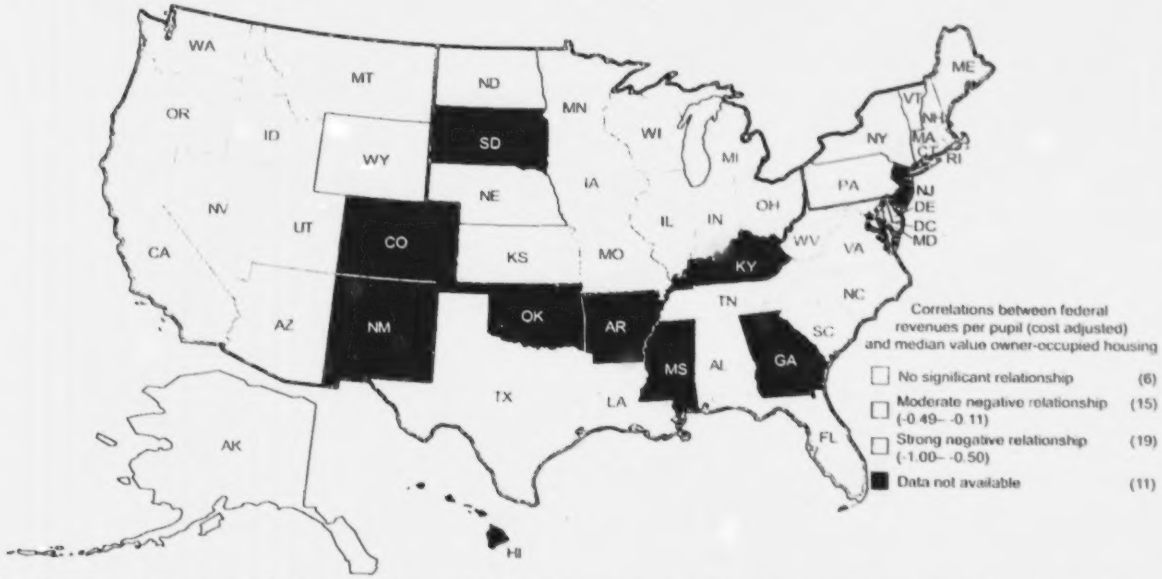
Table 5-5. Correlations between federal revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	Connecticut, Rhode Island	Connecticut, Rhode Island
Moderate positive relationship	Illinois, Indiana, New Jersey, Ohio, Pennsylvania, Vermont	Indiana, Massachusetts,[1] Ohio, Vermont
Weak positive relationship	Nebraska, New York	Illinois,[1] Pennsylvania[1]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Arkansas, Georgia, Louisiana, Massachusetts, Mississippi, North Carolina, Oklahoma, South Carolina, Washington	Arkansas, Georgia, Idaho,[1] Louisiana, Maine,[1] Mississippi, Missouri,[1] North Carolina, Oklahoma, South Carolina, Tennessee,[1] Washington
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Alaska, Arizona, California, Colorado, Delaware, Florida, Idaho, Iowa, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, California, Colorado, Delaware, Florida, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Montana, Nebraska,[1] Nevada, New Hampshire, New Jersey,[1] New Mexico, New York,[1] North Dakota, Oregon, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin, Wyoming, *US overall*

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 5-2. Correlations between federal revenues per pupil and median value owner-occupied housing (cost-adjusted dollars), by state: 1997–98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AZ
NM
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HI
Correlations between federal revenues per pupil (cost adjusted) and median value owner-occupied housing
No significant relationship (6)
Moderate negative relationship (-0.49– -0.11) (15)
Strong negative relationship (-1.00– -0.50) (19)
Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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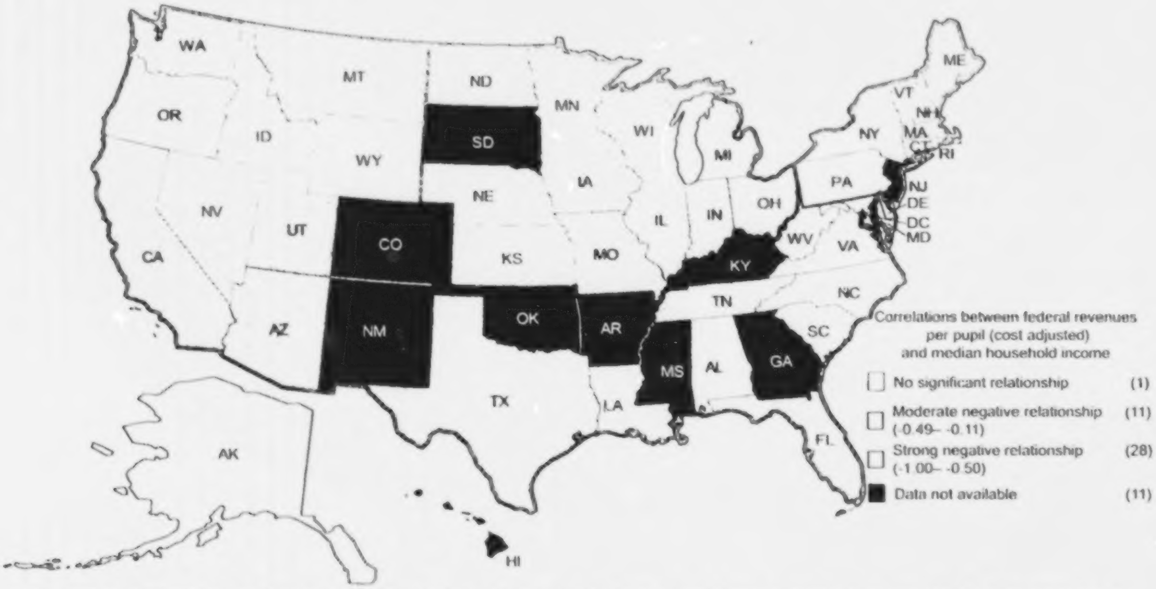
Figure 5-3. Correlations between federal revenues per pupil and median household income (cost-adjusted dollars), by state: 1997–98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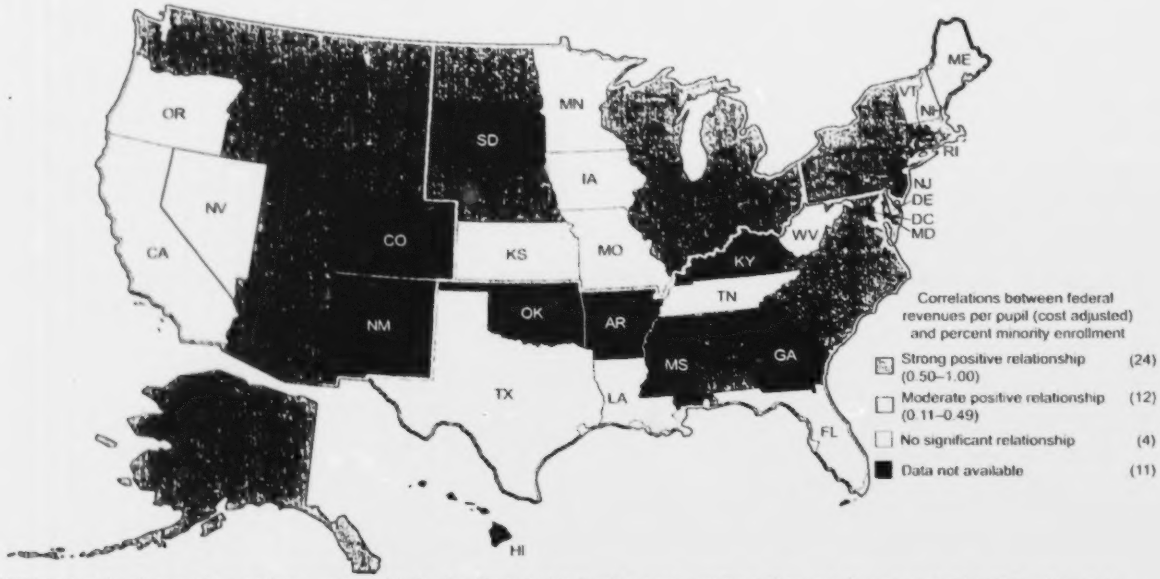
Correlations between federal revenues per pupil (cost adjusted) and median household income
No significant relationship (1)
Moderate negative relationship (-0.49– -0.11) (11)
Strong negative relationship (-1.00– -0.50) (28)
Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 5-4. Correlations between federal revenues per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98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HI
Correlations between federal revenues per pupil (cost adjusted) and percent minority enrollment
Strong positive relationship (0.50–1.00) (24)
Moderate positive relationship (0.11–0.49) (12)
No significant relationship (4)
Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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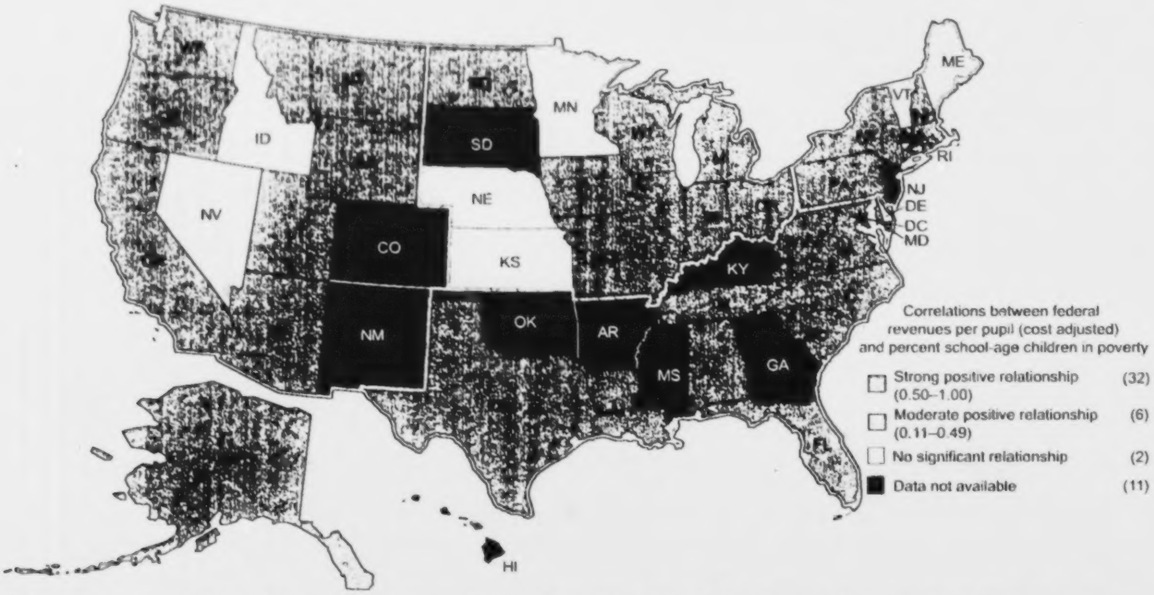
before cost adjustments and 24 after) showed a strong positive relationship between minority enrollment and federal revenues per pupil.

The percent of school-age children in poverty in a district showed a very strong, positive relationship with federal revenues per pupil, both at the national level and in the states. The correlation between percent school-age children in poverty and total revenues per pupil was +0.66 before cost adjustments and +0.65 after cost adjustments. No states showed a negative relationship between children in poverty and federal revenues per pupil, and only Delaware and Nevada showed no significant relationship, both before and after cost adjustments. Over three-quarters of the states with sufficient data (32) showed a strong relationship between poverty and federal revenues, both before and after cost adjustments (figure 5-5).

Figure 5-5. Correlations between federal revenues per pupil and percent school-age children in poverty (cost-adjusted dollars), by state: 1997–98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Correlations between federal revenues per pupil (cost adjusted) and percent school-age children in poverty
▨ Strong positive relationship (0.50–1.00) (32)
▨ Moderate positive relationship (0.11–0.49) (6)
☐ No significant relationship (2)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Title I Revenues

Title I revenues for public elementary and secondary education totaled $6.9 billion in 1997–98 (table 5-6). This was just over 34 percent of federal revenues ($20.1 billion) in 1997–98.

Title I Revenues Per Pupil

Title I revenues per pupil in the United States averaged $150 in 1997–98 before cost adjustments (table 5-6). Title I revenues per pupil were highest in the Northeast ($174) and lowest in the West ($134). At $154, Title I revenues per pupil were higher in the South than in the Midwest ($144). The use of cost adjustments had little effect on the range between the highest and lowest regions. The range changed

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Table 5-6. Federal Title I revenues, cost-adjusted Title I revenues, Title I revenues per pupil, and cost-adjusted Title I revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	Title I revenues (in thousands)	Cost-adjusted Title I revenues (in thousands)	Title I revenues per pupil	Cost-adjusted Title I revenues per pupil
All districts	$6,862,458	$6,917,465	$150	$152
Region				
Northeast	1,381,815	1,243,452	174	157
Midwest	1,529,603	1,562,024	144	148
South	2,533,115	2,758,459	154	167
West	1,417,925	1,353,530	134	128
District enrollment				
0–999	376,168	427,470	138	160
1,000–4,999	1,624,061	1,743,797	125	135
5,000–9,999	881,081	903,257	125	128
10,000 or more	3,981,148	3,842,942	174	168
Minority enrollment				
Less than 5 percent	1,084,227	1,164,006	96	103
5 percent–<20 percent	1,103,073	1,140,723	92	95
20 percent–<50 percent	2,139,279	2,167,271	167	169
50 percent or more	2,193,380	2,074,006	308	291
Data missing	342,499	371,460	—	—
School-age children in poverty				
Less than 5 percent	144,485	135,074	28	26
5 percent–<15 percent	1,174,307	1,177,225	76	76
15 percent–<25 percent	1,862,637	1,929,912	157	163
25 percent or more	3,338,530	3,303,794	310	307
Data missing	342,499	371,460	—	—
Median household income				
Less than $20,000	1,069,097	1,158,416	309	335
$20,000–<$25,000	1,785,313	1,870,732	213	223
$25,000–<$30,000	2,088,859	2,029,574	186	181
$30,000–<$35,000	888,037	854,769	117	113
$35,000 or more	688,653	632,515	55	50
Data missing	342,499	371,460	—	—
Median value owner-occupied housing				
Less than $40,000	949,347	1,040,279	259	284
$40,000–<$55,000	1,544,252	1,644,104	197	210
$55,000–<$85,000	1,948,590	1,992,726	135	138
$85,000 or more	2,077,770	1,868,897	120	108
Data missing	342,499	371,460	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

from $40 to $39 and the ratio of revenues per pupil remained 1.3 to 1. The South ($167) replaced the Northeast ($157) as the region with the highest per pupil revenues, and the West ($128) remained the region with lowest Title I revenues per pupil, followed by the Midwest ($148).

Large districts tended to have the highest Title I revenues per pupil, followed by the smallest districts, both before and after cost adjustments. Districts with between 1,000 and 10,000 students had the lowest Title I revenues per pupil on average. Before cost adjustments, revenues per pupil averaged $174 in districts with 10,000 or more students, compared to $138 in districts with less than 1,000 students and $125 in districts with between 1,000 and 10,000 students. After cost adjustments, the difference became smaller. Cost-adjusted revenues ranged from $168 in the largest districts and $160 in the smallest districts, to $135 and $128 in mid-sized districts. Correlation analysis found a weak positive relationship between district enrollment and Title I revenues per pupil before cost adjustments (+0.02) and no significant relationship after cost adjustments (tables A-1 and A-2).

Before cost adjustments, Title I revenues per pupil showed a negative relationship with both measures of district wealth—median household income (-0.57) and median value owner-occupied housing (-0.18) (table A-21). School districts with median household income at or above $35,000 had average revenues per pupil of $55, while districts with median household incomes below $20,000 had revenues per pupil of $309 (table 5-6). The relationship between Title I revenues per pupil and median value owner-occupied housing was less distinct (table A-21). Districts with median housing values at or above $85,000 had average revenues per pupil of $120, while districts with median housing values below $40,000 had revenues per pupil of $259.

After cost adjustments, the differences became greater. Adjusted Title I revenues per pupil became higher in districts with the lowest median household incomes ($335), and lower in districts with the highest incomes ($50). Adjustments also raised Title I revenues per pupil in districts with the lowest median housing values ($284) and lowered them in districts with the highest housing values to $108. Correlation measures were also stronger after cost adjustments. The correlation between adjusted Title I revenues per pupil and median household income was -0.63 and median value owner-occupied housing was -0.27 (table A-22).

Title I revenues per pupil showed a strong positive relationship with percent minority enrollment both before (+0.63) and after (+0.58) cost adjustments. Before cost adjustments, Title I revenues per pupil ranged from $96 on average in districts with less than 5 percent minority and $92 in districts with 5 to 20 percent minority, to $308 in districts with 50 percent or higher minority levels. Cost adjustments decreased the range, from $103 and $95, respectively, in low-minority districts to $291 in high-minority districts.

Title I revenues per pupil showed a very strong positive correlation with district poverty, both before (+0.85) and after (+0.87) cost adjustments. Revenues per pupil were lowest in the lowest-poverty districts and highest in the highest-poverty districts—$28 and $310, respectively, before cost adjustments, and $26 and $307 respectively, after cost adjustments.

Variations in Title I Revenues Per Pupil

Variation of Title I revenues per pupil was high in the states and across the United States (table 5-7). The restricted range ratio for unadjusted Title I revenues per pupil ranged from 1.06 in Nevada to 174.6 in Indiana.[14] The United States ratio was 32.45 with 4 states exceeding the national measure: Indiana, Missouri, Texas, and Wisconsin. After cost adjustments, the restricted range ratio ranged from 1.18 in Nevada to 158.70 in Indiana (table 5-8). The cost-adjusted United States ratio was 29.73, with the same 4 states continuing to exceed the national measure.

The coefficient of variation for unadjusted Title I revenues per pupil ranged from 0.21 in Nevada to 2.34 in Vermont (table 5-7).[15] Twenty states, from all areas of the country, exceeded the national variation of 0.82. After cost adjustments, the coefficient of variation ranged from 0.23 in Nevada to 2.34 in

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[14] The restricted range ratio could not be calculated in California, Colorado, Connecticut, Illinois, Kansas, Massachusetts, Montana, Nebraska, New Hampshire, New Jersey, Oregon, Pennsylvania, Rhode Island, or Vermont because Title I revenues per pupil were equal to zero at the fifth percentile.

[15] See footnote 12 above.

Table 5-7. Variation in Title I revenues per pupil (unadjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	32.45	†	0.82	†	0.44	†	†	†
Alabama	4.06	8	0.52	11	0.28	12	10.33	1
Alaska	4.91	11	0.87	33	0.33	18	20.67	2
Arizona	7.00	19	0.73	22	0.35	22	21.00	2
Arkansas	6.73	17	0.63	18	0.32	17	17.33	2
California	(2)	(2)	0.66	19	0.38	23	21.00	2
Colorado	(2)	(2)	0.86	32	0.45	36	34.00	3
Connecticut	(2)	(2)	1.42	48	0.65	48	48.00	4
Delaware	2.01	3	0.31	2	0.15	2	2.33	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	2.02	4	0.33	3	0.18	3	3.33	1
Georgia	12.55	27	0.72	21	0.39	24	24.00	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	6.07	14	0.55	14	0.30	14	14.00	1
Illinois	(2)	(2)	0.97	42	0.52	44	43.00	4
Indiana	174.60	35	0.87	33	0.45	36	34.67	3
Iowa	6.96	18	0.55	14	0.30	14	15.33	2
Kansas	(2)	(2)	0.70	20	0.39	24	22.00	2
Kentucky	5.03	12	0.47	8	0.26	9	9.67	1
Louisiana	1.97	2	0.34	4	0.19	4	3.33	1
Maine	8.04	22	0.74	25	0.34	21	22.67	2
Maryland	9.32	25	0.92	37	0.41	30	30.67	3
Massachusetts	(2)	(2)	1.03	44	0.55	46	45.00	4
Michigan	26.90	30	0.94	39	0.49	42	37.00	4
Minnesota	12.63	28	0.83	30	0.43	33	30.33	3
Mississippi	6.16	15	0.54	13	0.30	14	14.00	1
Missouri	34.28	32	0.79	26	0.41	30	29.33	3
Montana	(2)	(2)	0.97	42	0.48	41	41.50	4
Nebraska	(2)	(2)	0.81	28	0.44	35	31.50	3
Nevada	1.06	1	0.21	1	0.10	1	1.00	1
New Hampshire	(2)	(2)	0.93	38	0.46	38	38.00	4
New Jersey	(2)	(2)	1.19	47	0.59	47	47.00	4
New Mexico	5.04	13	0.46	7	0.23	6	8.67	1
New York	16.44	29	0.73	22	0.40	27	26.00	3
North Carolina	3.06	5	0.48	9	0.26	9	7.67	1
North Dakota	4.44	9	0.83	30	0.33	18	19.00	2
Ohio	28.71	31	0.91	36	0.49	42	36.33	4
Oklahoma	7.98	21	0.60	17	0.33	18	18.67	2
Oregon	(2)	(2)	0.73	22	0.39	24	23.00	2
Pennsylvania	(2)	(2)	0.87	33	0.47	40	36.50	4
Rhode Island	(2)	(2)	1.10	46	0.54	45	45.50	4
South Carolina	7.97	20	0.53	12	0.29	13	15.00	2
South Dakota	8.24	23	1.07	45	0.40	27	31.67	3
Tennessee	4.76	10	0.43	6	0.24	7	7.67	1
Texas	82.04	34	0.79	26	0.43	33	31.00	3
Utah	3.10	6	0.51	10	0.25	8	8.00	1
Vermont	(2)	(2)	2.34	49	0.86	49	49.00	4
Virginia	10.19	26	0.81	28	0.42	32	28.67	3
Washington	8.43	24	0.95	40	0.40	27	30.33	3
West Virginia	3.85	7	0.39	5	0.21	5	5.67	1
Wisconsin	60.21	33	0.95	40	0.46	38	37.00	4
Wyoming	6.17	16	0.59	16	0.27	11	14.33	2

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for Title I revenues per pupil in California, Colorado, Connecticut, Illinois, Kansas, Massachusetts, Montana, Nebraska, New Hampshire, New Jersey, Oregon, Pennsylvania, Rhode Island, or Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 5-8. Variation in Title I revenues per pupil (cost-adjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	29.73	†	0.81	†	0.43	†	†	†
Alabama	4.47	11	0.54	11	0.29	12	11.33	1
Alaska	4.06	8	0.88	34	0.33	18	20.00	2
Arizona	6.92	18	0.75	24	0.36	22	21.33	2
Arkansas	6.89	17	0.65	18	0.32	17	17.33	2
California	(2)	(2)	0.67	19	0.38	23	21.00	2
Colorado	(2)	(2)	0.87	32	0.45	37	34.50	3
Connecticut	(2)	(2)	1.40	48	0.64	48	48.00	4
Delaware	1.96	2	0.33	2	0.16	2	2.00	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	2.07	4	0.34	3	0.18	3	3.33	1
Georgia	13.29	28	0.73	22	0.40	26	25.33	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	6.83	16	0.57	14	0.30	13	14.33	2
Illinois	(2)	(2)	0.95	40	0.51	44	42.00	4
Indiana	158.70	35	0.83	29	0.44	34	32.67	3
Iowa	8.16	19	0.57	14	0.31	16	16.33	2
Kansas	(2)	(2)	0.72	21	0.40	26	23.50	2
Kentucky	5.78	13	0.49	8	0.27	9	10.00	1
Louisiana	2.11	5	0.34	3	0.19	4	4.00	1
Maine	9.12	25	0.73	22	0.34	19	22.00	2
Maryland	8.87	22	0.90	37	0.41	28	29.00	3
Massachusetts	(2)	(2)	1.02	44	0.55	46	45.00	4
Michigan	23.70	30	0.92	39	0.48	41	36.67	4
Minnesota	12.47	27	0.86	31	0.43	31	29.67	3
Mississippi	6.71	15	0.55	12	0.30	13	13.33	2
Missouri	32.70	32	0.78	25	0.41	28	28.33	3
Montana	(2)	(2)	1.01	42	0.48	41	41.50	4
Nebraska	(2)	(2)	0.82	28	0.44	34	31.00	3
Nevada	1.18	1	0.23	1	0.10	1	1.00	1
New Hampshire	(2)	(2)	1.01	42	0.45	37	39.50	4
New Jersey	(2)	(2)	1.16	47	0.58	47	47.00	4
New Mexico	2.04	3	0.45	7	0.22	5	5.00	1
New York	16.32	29	0.71	20	0.39	24	24.33	2
North Carolina	3.32	7	0.51	9	0.27	9	8.33	1
North Dakota	4.27	10	0.88	34	0.35	21	21.67	2
Ohio	26.73	31	0.88	34	0.48	41	35.33	4
Oklahoma	9.05	24	0.64	17	0.34	19	20.00	2
Oregon	(2)	(2)	0.78	25	0.39	24	24.50	3
Pennsylvania	(2)	(2)	0.87	32	0.47	40	36.00	4
Rhode Island	(2)	(2)	1.08	45	0.54	45	45.00	4
South Carolina	8.25	20	0.55	12	0.30	13	15.00	2
South Dakota	8.73	21	1.13	46	0.43	31	32.67	3
Tennessee	4.76	12	0.43	6	0.24	7	8.33	1
Texas	85.99	34	0.80	27	0.44	34	31.67	3
Utah	2.94	6	0.52	10	0.25	8	8.00	1
Vermont	(2)	(2)	2.34	49	0.84	49	49.00	4
Virginia	10.17	26	0.83	29	0.43	31	28.67	3
Washington	9.04	23	0.98	41	0.41	28	30.67	3
West Virginia	4.20	9	0.40	5	0.22	5	6.33	1
Wisconsin	61.47	33	0.90	37	0.45	37	35.67	3
Wyoming	6.22	14	0.60	16	0.27	9	13.00	1

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for Title I revenues per pupil in California, Colorado, Connecticut, Illinois, Kansas, Massachusetts, Montana, Nebraska, New Hampshire, New Jersey, Oregon, Pennsylvania, Rhode Island, or Vermont because the fifth percentile—by which the difference is divided—was equal to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Vermont (table 5-8). The cost-adjusted United States coefficient was 0.81, and 22 states exceeded the national measure.

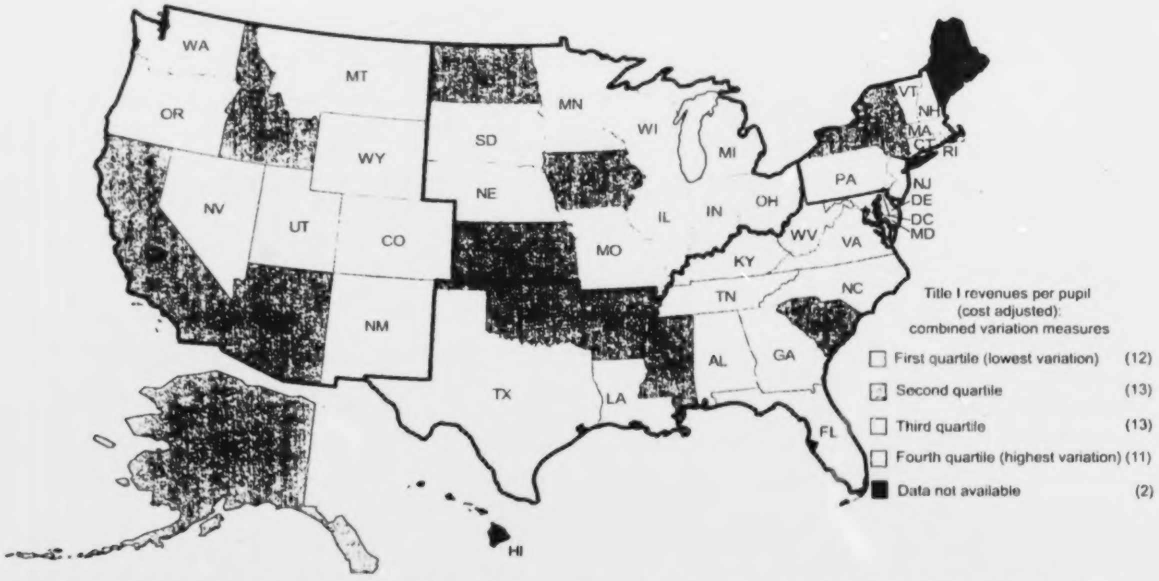
Before cost adjustments, the Gini coefficient for Title I revenues per pupil ranged from 0.10 in Nevada to 0.86 in Vermont (table 5-7). The unadjusted coefficient for the United States was 0.44, with 14 states exceeding the national measure. After cost adjustments, the coefficient ranged from 0.10 in Nevada to 0.84 in Vermont (table 5-8). The national Gini coefficient was 0.43 after cost adjustments. Sixteen states had variation greater than the cost-adjusted national measure.

In a composite of the three variation measures, the South and West had less interdistrict variation than the Northwest and Midwest (figure 5-6). Three-quarters of the states in the Northeast (78 percent) and Midwest (75 percent) fell into the two quartiles with highest variation when ranked with states across the country after cost adjustments (table 5-9). Three-quarters (75 percent) of the Southern states and two-thirds of the Western (67 percent) fell into the two quartiles with lowest variation relative to other states.

Relationship between Title I Revenues Per Pupil and Selected District Fiscal and Demographic Characteristics

For the majority of the states and for the United States as a whole, Title I revenues per pupil showed a negative relationship with two measures of district fiscal capacity—median value owner-occupied housing and median household income—both before and after cost adjustments. The unadjusted United States correlation for median value owner-occupied housing was -0.18 and for median household income was -0.57. The adjusted correlations were -0.27 (housing value) and -0.63 (household income)

Figure 5-6. Synthesis of variation measures of Title I revenues per pupil (cost-adjusted dollars), by state: 1997–98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Title I revenues per pupil (cost adjusted): combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (13)
☐ Third quartile (13)
☐ Fourth quartile (highest variation) (11)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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Table 5-9. Variation in Title I revenues per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted Title I revenues per pupil		
Northeast	11	89
Midwest	25	75
South	75	25
West	75	25
Cost-adjusted Title I revenues per pupil		
Northeast	22	78
Midwest	25	75
South	75	25
West	67	33

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

(tables A-21 and A-22). Before cost adjustments, four states—Delaware, Florida, Nevada, and Vermont—showed no significant relationship between Title I revenues per pupil and median value owner-occupied housing (table 5-10). Only New York showed a moderate positive relationship. The remaining 35 states with sufficient data showed a negative relationship between these two variables, with 20 of those states showing a strong negative relationship. After cost adjustments, Nevada, New York, and Vermont showed no significant relationship, and no states demonstrated a positive relationship between Title I revenues per pupil and median value owner-occupied housing. Twenty-one states showed a strong negative relationship, while 16 showed a moderate negative relationship after cost adjustments.

State relationships between unadjusted Title I revenues per pupil and median household income were also strongly negative. No states demonstrated a positive relationship, and only Delaware showed no significant relationship between revenues per pupil and income. Four states—Montana, Nebraska, New Hampshire, and Vermont—demonstrated a moderate negative relationship, and the remaining 35 states with sufficient data showed a strong negative relationship between these variables. Cost adjustments had no effect on the classification of states. Delaware still showed no significant relationship, and the same four states demonstrated a moderate negative relationship between Title I revenues per pupil and median household income.

For the United States as a whole, a strong positive relationship was found between Title I revenues per pupil and percent minority enrollment, both before (+0.63) and after (+0.58) cost adjustments. Before cost adjustments, no significant relationship was found in Maine or West Virginia (table 5-10). Six states—Iowa, Kansas, Montana, New Hampshire, Texas, and Vermont—showed a moderate positive relationship, while 32 states showed a strong positive relationship between percent minority enrollment and unadjusted Title I revenues per pupil. After cost adjustments were applied, Missouri joined the states showing a moderate positive relationship. The same two states showed no significant relationship between these variables. No states showed a negative relationship, either before or after cost adjustments.

Percent school-age children in poverty was strongly correlated with Title I revenues per pupil, both before (+0.85) and after (+0.87) cost adjustments and in all the states except Vermont. All states with sufficient data showed a positive relationship, and only Vermont showed a moderate positive relationship, both before and after cost adjustments (table 5-10).

Table 5-10. Correlations between Title I revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alabama, Alaska, Arizona, California, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Nevada, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Virginia, Washington, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, California, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Virginia, Washington, Wisconsin, Wyoming, *US overall*
Moderate positive relationship	Iowa, Kansas, Montana, New Hampshire, Texas, Vermont	Iowa, Kansas, Missouri,[1] Montana, New Hampshire, Texas, Vermont
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	Maine, West Virginia	Maine, West Virginia
School-age children in poverty		
Strong positive relationship	Alabama, Alaska, Arizona, California, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, California, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*
Moderate positive relationship	Vermont	Vermont
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	[none]
Strong negative relationship	[none]	[none]
No significant relationship	[none]	[none]
Median household income		
Strong positive relationship	[none]	[none]
Moderate positive relationship	[none]	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Montana, Nebraska, New Hampshire, Vermont	Montana, Nebraska, New Hampshire, Vermont
Strong negative relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*	Alabama, Alaska, Arizona, California, Connecticut, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*
No significant relationship	Delaware	Delaware
Median value owner-occupied housing		
Strong positive relationship	[none]	[none]
Moderate positive relationship	New York	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	California, Connecticut, Illinois, Kansas, Louisiana, Massachusetts, Montana, Nebraska, New Hampshire, North Dakota, Oregon, South Carolina, Washington, Wisconsin, Wyoming, *US overall*	California, Connecticut, Florida,[1] Illinois, Kansas, Louisiana, Massachusetts, Montana, Nebraska, New Hampshire, North Dakota, Oregon, South Carolina, Washington, Wisconsin, Wyoming, *US overall*
Strong negative relationship	Alabama, Alaska, Arizona, Idaho, Indiana, Iowa, Maine, Maryland, Michigan, Minnesota, Missouri, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Virginia, West Virginia	Alabama, Alaska, Arizona, Delaware,[1] Idaho, Indiana, Iowa, Maine, Maryland, Michigan, Minnesota, Missouri, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Virginia, West Virginia
No significant relationship	Delaware, Florida, Nevada, Vermont	Nevada, New York,[1] Vermont

Table 5-10. Correlations between Title I revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	Connecticut, Massachusetts, Rhode Island	Connecticut, Massachusetts, Rhode Island
Moderate positive relationship	Indiana, New Jersey, New York, Ohio, Vermont, Wisconsin	Indiana, New Jersey, Ohio, Vermont
Weak positive relationship	Illinois, Michigan, Nebraska, *US overall*	New York[1]
Weak negative relationship	[none]	Iowa[1]
Moderate negative relationship	Arkansas, Georgia, Maine, Minnesota, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Virginia	Arizona,[1] Arkansas, Florida,[1] Georgia, Idaho,[1] Louisiana,[1] Maine, Minnesota, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Virginia, Washington[1]
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Alaska, Arizona, California, Colorado, Delaware, Florida, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maryland, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Washington, West Virginia, Wyoming	Alabama, Alaska, California, Colorado, Delaware, Illinois,[1] Kansas, Kentucky, Maryland, Michigan,[1] Montana, Nebraska,[1] Nevada, New Hampshire, New Mexico, North Dakota, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, West Virginia, Wisconsin,[1] Wyoming, *US overall*[1]

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997-98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Federal Revenues as a Percentage of Total Revenues

Federal revenues were just over 6 percent of total district revenues for public elementary and secondary education in the United States in 1997–98. Federal revenues were the smallest source of funds for public education, after state revenues (48 percent) and local revenues (46 percent).

Variations in Federal Revenues as a Percentage of Total Revenues

The restricted range ratio was 8.61 for percent federal revenues across the United States (table 5-11). Among the states, the ratio ranged from a low of 0.14 in Nevada to a high of 35.67 in Montana and 86.52 in New Hampshire. Eight states—Connecticut, Illinois, Michigan, Montana, New Hampshire, New York, Ohio, and Pennsylvania—had a higher restricted range ratio than the national measure.[16]

The coefficient of variation ranged from 0.20 in Nevada to 1.22 in North Dakota. Twenty states throughout the country had greater variation than the national level of 0.66.

The smallest Gini coefficient was 0.06, found in Nevada. Vermont had the highest variation at 0.53. Fifteen states exceeded the national measure of 0.34.

When a composite variation measure was calculated, Northeastern and Midwestern states had high variation in percent federal revenues relative to other states (figure 5-7). With 94 percent of Southern states falling into the two quartiles with lowest variation when ranked against other states, the South had the lowest variations (table 5-12). Half of the Western states (58 percent) were in the low-variation quartiles in percent federal revenues.

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[16] The range across the states excludes Vermont, where the restricted range ratio was infinity.

Table 5-11. Variation in percent federal revenues, by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	8.61	†	0.66	†	0.34	†	†	†
Alabama	2.19	8	0.38	10	0.21	11	9.67	1
Alaska	4.84	27	0.82	38	0.33	29	31.33	3
Arizona	7.22	35	0.95	43	0.39	42	40.00	4
Arkansas	2.54	13	0.45	14	0.23	14	13.67	2
California	4.69	26	0.48	16	0.26	18	20.00	2
Colorado	5.36	31	0.68	30	0.33	29	30.00	3
Connecticut	12.89	44	0.90	42	0.45	47	44.33	4
Delaware	2.68	15	0.50	18	0.22	12	15.00	2
District of Columbia	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])
Florida	1.06	2	0.23	2	0.12	2	2.00	1
Georgia	4.34	24	0.50	18	0.28	21	21.00	2
Hawaii	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])
Idaho	2.33	9	0.45	14	0.22	12	11.67	1
Illinois	17.02	46	0.77	35	0.42	45	42.00	4
Indiana	7.78	38	0.60	25	0.34	31	31.33	3
Iowa	3.31	16	0.40	12	0.23	14	14.00	2
Kansas	8.33	40	0.96	44	0.39	42	42.00	4
Kentucky	2.39	10	0.34	7	0.19	8	8.33	1
Louisiana	2.01	7	0.28	4	0.15	4	5.00	1
Maine	4.84	27	0.68	30	0.28	21	26.00	2
Maryland	3.62	19	0.59	23	0.28	21	21.00	2
Massachusetts	3.65	20	0.49	17	0.27	19	18.67	2
Michigan	12.62	43	0.76	33	0.41	44	40.00	4
Minnesota	3.32	17	1.08	46	0.32	28	30.33	3
Mississippi	2.47	12	0.35	8	0.20	9	9.67	1
Missouri	5.39	32	0.59	23	0.30	25	26.67	3
Montana	35.67	47	1.18	48	0.45	47	47.33	4
Nebraska	5.24	30	0.87	40	0.37	37	35.67	3
Nevada	0.14	1	0.20	1	0.06	1	1.00	1
New Hampshire	86.52	48	0.61	26	0.34	31	35.00	3
New Jersey	8.27	39	0.87	40	0.38	40	39.67	4
New Mexico	7.76	37	0.83	39	0.34	31	35.67	3
New York	8.71	41	0.63	27	0.35	35	34.33	3
North Carolina	1.71	4	0.33	6	0.18	6	5.33	1
North Dakota	3.42	18	1.22	49	0.37	37	34.67	3
Ohio	9.07	42	0.68	30	0.38	40	37.33	4
Oklahoma	5.11	29	0.52	20	0.27	19	22.67	2
Oregon	4.07	22	0.43	13	0.24	16	17.00	2
Pennsylvania	13.37	45	0.81	37	0.44	46	42.67	4
Rhode Island	4.62	25	0.64	28	0.34	31	28.00	3
South Carolina	2.44	11	0.36	9	0.20	9	9.67	1
South Dakota	6.05	34	1.04	45	0.37	37	38.67	4
Tennessee	1.95	6	0.30	5	0.16	5	5.33	1
Texas	5.87	33	0.55	22	0.30	25	26.67	3
Utah	1.34	3	0.39	11	0.18	6	6.67	1
Vermont	([2])	([2])	1.09	47	0.53	49	48.00	4
Virginia	3.80	21	0.52	20	0.28	21	20.67	2
Washington	4.21	23	0.65	29	0.30	25	25.67	2
West Virginia	1.88	5	0.25	3	0.14	3	3.67	1
Wisconsin	7.24	36	0.76	33	0.35	35	34.67	3
Wyoming	2.54	13	0.77	35	0.24	16	21.33	2

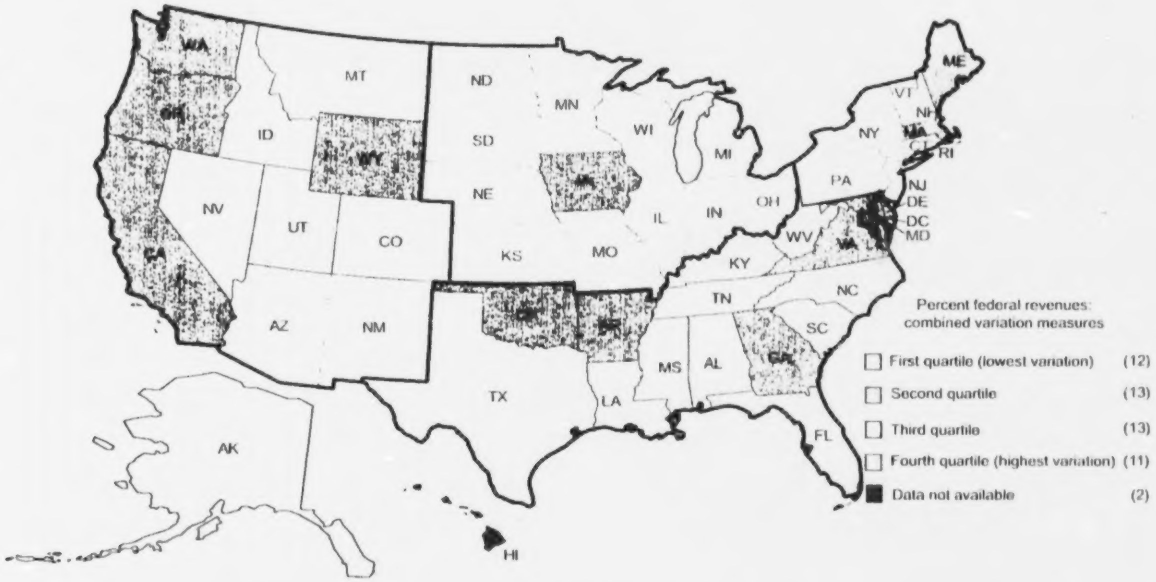
†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

[2] The restricted range ratio could not be calculated for percent federal revenues in Vermont because the fifth percentile—by which the difference was divided—was equal to zero.

SOURCE: U.S. Department of Education, Nat[illegible] Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Figure 5-7. Synthesis of variation measures of percent federal revenues, by state: 1997–98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Percent federal revenues: combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (13)
☐ Third quartile (13)
☐ Fourth quartile (highest variation) (11)
■ Data not available (2)

NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 5-12. Variation in percent federal revenues, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Percent federal revenues		
Northeast	22	78
Midwest	8	92
South	94	6
West	58	42

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Relationship between Percent Federal Revenues and Selected District Fiscal and Demographic Characteristics

For the United States as a whole and for nearly all states with sufficient data, percent federal revenues showed a negative relationship with both measures of district fiscal capacity—median value owner-occupied housing (-0.24) and median household income (-0.59) (table A-23). Thirty-three states showed a negative relationship between percent federal revenues and median value owner-occupied housing, with 19 states demonstrating a strong negative correlation (table 5-13). Nebraska demonstrated a moderate positive relationship. Six states—Delaware, Nevada, New York, North Dakota, Vermont, and Wyoming—showed no significant relationship between these variables. Only Delaware and Nevada did not show a negative relationship between percent federal revenues and median household income: they showed no significant relationship. Kansas, Minnesota, Montana, Nebraska, New Hampshire, Vermont, and Wyoming showed a moderate negative relationship between percent federal revenues

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Table 5-13. Correlations between percent federal revenues and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States
Minority enrollment	
Strong positive relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Montana, Nebraska, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Utah, Virginia, Washington, Wisconsin, Wyoming, *US overall*
Moderate positive relationship	Iowa, Kansas, Minnesota, Missouri, New Hampshire, Oregon, Tennessee, Texas, Vermont
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	[none]
Strong negative relationship	[none]
No significant relationship	Delaware, Maine, Nevada, West Virginia
School-age children in poverty	
Strong positive relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, *US overall*
Moderate positive relationship	Idaho, Kansas, Maine, Minnesota, Nebraska, Vermont
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	[none]
Strong negative relationship	[none]
No significant relationship	Delaware, Nevada
Median household income	
Strong positive relationship	[none]
Moderate positive relationship	[none]
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	Kansas, Minnesota, Montana, Nebraska, New Hampshire, Vermont, Wyoming
Strong negative relationship	Alabama, Alaska, Arizona, California, Connecticut, Florida, Idaho, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, *US overall*
No significant relationship	Delaware, Nevada
Median value owner-occupied housing	
Strong positive relationship	[none]
Moderate positive relationship	Nebraska
Weak positive relationship	[none]
Weak negative relationship	[none]
Moderate negative relationship	California, Connecticut, Florida, Idaho, Illinois, Kansas, Louisiana, Maine, Minnesota, Missouri, Montana, New Hampshire, Washington, Wisconsin, *US overall*
Strong negative relationship	Alabama, Alaska, Arizona, Indiana, Iowa, Maryland, Massachusetts, Michigan, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, West Virginia
No significant relationship	Delaware, Nevada, New York, North Dakota, Vermont, Wyoming

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

and median household income, while the remaining 31 states with sufficient data demonstrated a strong negative relationship.

A strong positive relationship (+0.58) was found between percent federal revenues and percent minority enrollment. Twenty-seven of the 40 states with sufficient data showed a strong positive relationship (table 5-13). Nine states showed a moderate positive relationship, while Delaware, Maine, Nevada, and West Virginia showed no significant relationship between percent federal revenues and percent minority enrollment.

Percent federal revenues was highly correlated (+0.76) with percent school-age children in poverty, both at the national level and among the states. No states demonstrated a negative relationship between percent poverty and percent federal revenues (table 5-13). Delaware and Nevada demonstrated no significant relationship. Six states—Idaho, Kansas, Maine, Minnesota, Nebraska, and Vermont—showed a moderate positive relationship. The remaining 32 states with sufficient data showed a strong positive relationship between percent poverty and percent federal revenues.

Chapter 6: Total Revenues

Total Revenues

School district revenues for public elementary and secondary education totaled $321.6 billion in 1997–98 (table 6-1). Just over 48 percent of these revenues ($154.6 billion) came from state funds, while 46 percent ($146.9 billion) came from local sources and just over 6 percent ($20.1 billion) came from federal programs. The distribution of revenues from local, state, and federal sources for the 50 states and the District of Columbia is shown in table 6-2.

Total Revenues Per Pupil

Total revenues per pupil in the United States averaged $7,047 in 1997–98 before cost adjustments (table 6-1).

Total revenues per pupil were highest in the Northeast ($9,164) and lowest in the South ($6,324) and West ($6,380). At $7,255 per pupil, total revenues in the Midwest were higher than in the South and West. The use of cost adjustments decreased the range between the highest and lowest regions from $2,840 to $2,214 and the ratio of revenues per pupil from 1.5 to 1.4 to 1. Although the Northeast remained the highest-revenue region at $8,280 per pupil, the West ($6,066) replaced the South ($6,773) as the region with lowest total per pupil revenues.

Smaller districts tended to have greater total revenues per pupil, both before and after cost adjustments. Before cost adjustments, total revenues per pupil averaged $7,524 in districts with fewer than 1,000 students, compared to $6,887 in districts with 10,000 or more students. After cost adjustments, smaller districts continued to have higher average total revenues per pupil than larger districts. In addition, the difference between the smallest and the largest districts increased from $637 to $1,703 per pupil. Nationally, however, there was a weak negative relationship between a district's enrollment and total revenues per pupil, both before (-0.04) and after (-0.08) cost adjustments (tables A-1 and A-2).

Before cost adjustments, total revenues per pupil showed small but statistically significant relationships with two measures of district wealth—median household income (+0.30) and median value owner-occupied housing (+0.29) (table A-24). School districts with median household income at or above $35,000 had average total revenues per pupil of $7,586, while districts with median household incomes below $20,000 had revenues per pupil of $6,674 (table 6-1). Similarly, districts with median housing values at or above $85,000 had average total revenues of $7,698 per pupil, while districts with median housing values below $40,000 had revenues per pupil of $6,905.

After cost adjustments, the situation was reversed. Total adjusted revenues per pupil were higher in districts with the lowest median household incomes ($7,329 per pupil) than in districts with the highest incomes ($7,018). Total revenues per pupil were also higher in districts with the lowest median housing values ($7,676) than in districts with the highest housing values ($7,049). However, there was a weak

Table 6-1. Total revenues, cost-adjusted total revenues, total revenues per pupil, and cost-adjusted total revenues per pupil in public school districts, by region, enrollment, minority enrollment, poverty, median household income, and median value owner-occupied housing: 1997–98

School district characteristics	Total revenues (in thousands)	Cost-adjusted total revenues (in thousands)	Total revenues per pupil	Cost-adjusted total revenues per pupil
All districts	$321,622,156	$319,728,825	$7,047	$7,028
Region				
Northeast	72,682,562	65,472,189	9,164	8,280
Midwest	77,058,766	78,684,493	7,255	7,446
South	104,199,649	111,596,706	6,324	6,773
West	67,681,179	63,975,437	6,380	6,066
District enrollment				
0–999	20,454,296	22,523,964	7,524	8,405
1,000–4,999	93,183,195	94,672,223	7,175	7,323
5,000–9,999	50,437,706	49,405,143	7,148	7,017
10,000 or more	157,546,959	153,127,496	6,887	6,702
Minority enrollment				
Less than 5 percent	79,897,569	82,397,885	7,074	7,300
5 percent–<20 percent	83,948,316	83,374,947	6,995	6,947
20 percent–<50 percent	87,836,784	87,474,578	6,843	6,814
50 percent or more	53,065,381	49,948,518	7,443	7,006
Data missing	16,874,106	16,532,898	—	—
School-age children in poverty				
Less than 5 percent	42,739,421	39,388,077	8,264	7,625
5 percent–<15 percent	106,317,343	105,759,079	6,866	6,830
15 percent–<25 percent	78,803,683	81,823,857	6,650	6,905
25 percent or more	76,887,603	76,224,915	7,149	7,088
Data missing	16,874,106	16,532,898	—	—
Median household income				
Less than $20,000	23,097,182	25,366,086	6,674	7,329
$20,000–<$25,000	56,067,251	59,842,901	6,677	7,127
$25,000–<$30,000	78,290,883	78,663,371	6,985	7,018
$30,000–<$35,000	51,469,451	50,715,400	6,806	6,706
$35,000 or more	95,823,283	88,608,169	7,586	7,018
Data missing	16,874,106	16,532,898	—	—
Median value owner-occupied housing				
Less than $40,000	25,264,791	28,084,382	6,905	7,676
$40,000–<$55,000	51,312,366	55,347,453	6,554	7,070
$55,000–<$85,000	94,795,385	97,658,908	6,561	6,761
$85,000 or more	133,375,508	122,105,185	7,698	7,049
Data missing	16,874,106	16,532,898	—	—

—Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

relationship between adjusted total revenues per pupil and both of the two measures of district wealth for the United States as a whole. The correlation between adjusted total revenues per pupil and median household income was +0.05 and median value owner-occupied housing was -0.03 (table A-25).

Total revenues per pupil showed very little relationship with district demographic characteristics such as percent minority enrollment and percent school-age children living in poverty—both before and after cost adjustments. Before adjustments, school districts with the highest minority enrollments had higher total revenues per pupil than districts with the lowest minority enrollments, $7,443 and $7,074, respectively. After adjustments, the figures were nearly reversed—$7,006 in the highest-minority districts and $7,300 in the lowest-minority districts. However, in both cases there was very little correlation between total revenues per pupil and percent minority enrollment. The correlation between minority enrollment and total revenues per pupil was +0.08 before cost adjustments and -0.04 after cost adjustments.

Table 6-2. Percent of total revenues (in unadjusted dollars) across sources, by state: 1997–98

State	Local	State	Federal	Total
United States	45.9	47.6	6.6	100.0
Alabama	28.4	62.5	9.0	100.0
Alaska	25.1	61.8	13.0	100.0
Arizona	47.1	42.8	10.1	100.0
Arkansas	32.5	58.6	8.8	100.0
California	33.7	58.3	8.0	100.0
Colorado	51.9	43.1	4.9	100.0
Connecticut	59.8	36.4	3.8	100.0
Delaware	30.0	63.6	6.4	100.0
District of Columbia	83.5	0.0	16.5	100.0
Florida	43.2	49.6	7.2	100.0
Georgia	42.1	51.4	6.5	100.0
Hawaii	2.4	89.2	8.4	100.0
Idaho	30.4	62.7	6.9	100.0
Illinois	64.0	29.4	6.6	100.0
Indiana	46.3	49.2	4.5	100.0
Iowa	47.5	47.8	4.7	100.0
Kansas	35.9	58.2	5.9	100.0
Kentucky	29.4	61.2	9.3	100.0
Louisiana	37.8	51.0	11.2	100.0
Maine	51.7	43.2	5.1	100.0
Maryland	56.5	38.6	5.0	100.0
Massachusetts	54.0	41.2	4.7	100.0
Michigan	29.7	64.4	5.9	100.0
Minnesota	44.9	50.4	4.7	100.0
Mississippi	31.6	54.9	13.4	100.0
Missouri	54.9	38.6	6.5	100.0
Montana	43.9	46.2	9.9	100.0
Nebraska	61.5	32.2	6.3	100.0
Nevada	63.8	31.8	4.4	100.0
New Hampshire	87.4	9.0	3.7	100.0
New Jersey	58.5	38.1	3.5	100.0
New Mexico	14.5	72.3	13.3	100.0
New York	55.0	39.5	5.5	100.0
North Carolina	28.9	64.1	6.9	100.0
North Dakota	49.3	39.0	11.8	100.0
Ohio	53.6	40.8	5.6	100.0
Oklahoma	33.5	57.7	8.8	100.0
Oregon	37.0	56.7	6.3	100.0
Pennsylvania	57.6	36.9	5.5	100.0
Rhode Island	54.5	40.1	5.4	100.0
South Carolina	39.8	52.2	8.0	100.0
South Dakota	54.8	35.5	9.7	100.0
Tennessee	43.8	47.7	8.5	100.0
Texas	49.1	43.4	7.5	100.0
Utah	32.0	60.7	7.3	100.0
Vermont	72.6	23.3	4.1	100.0
Virginia	63.6	31.2	5.2	100.0
Washington	28.1	65.6	6.3	100.0
West Virginia	28.7	62.0	9.3	100.0
Wisconsin	42.2	53.3	4.5	100.0
Wyoming	46.3	47.0	6.7	100.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Total revenues per pupil, in contrast, were higher in the lowest-poverty districts than in the highest poverty districts both before and after cost adjustments—$8,264 and $7,149, respectively, before cost adjustments, and $7,625 and $7,088 respectively, after cost adjustments. Again there was a weak correlation between total revenues per pupil and percent school-age children in poverty. The correlation between percent school-age children in poverty and total revenues per pupil was -0.08 before cost adjustments and not statistically significant after cost adjustments.

Restricted Range Ratio

The restricted range ratio for unadjusted total revenues per pupil across the United States was 1.05 (table 6-3). Variation across the states ranged from a low of 0.19 in Nevada to a high of 1.40 in Vermont. Four states (Alaska, Illinois, Montana, and Vermont) had a restricted range ratio higher than that for the United States.

When cost adjustments were applied, the restricted range ratio for total revenues per pupil across the United States decreased to 0.90 (table 6-3). Six states exceeded the national variation after cost adjustments: Alaska, Illinois, Missouri, Montana, New Hampshire, and Vermont. Cost adjustments increased the range between the lowest-variation and highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.22 in Florida to 1.56 in Vermont.

Coefficient of Variation

The coefficient of variation for unadjusted total revenues per pupil across the United States was 0.25 (table 6-3). Variation across the states ranged from a low of 0.08 in Kentucky to a high of 0.36 in Alaska. Five states (Alaska, Illinois, Montana, North Dakota, and Vermont) had a coefficient of variation higher than the coefficient for the United States.

When total revenues were adjusted for cost-of-education differences, the coefficient of variation for revenues per pupil across the United States became 0.22 (table 6-4). Nine states exceeded the national coefficient after cost adjustments: Alaska, Illinois, Minnesota, Montana, New Hampshire, North Dakota, Texas, Vermont, and Wyoming. Cost adjustments decreased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from a low of 0.08 in Florida and Kentucky to a high of 0.35 in Montana.

Gini Coefficient

The Gini coefficient for unadjusted total revenues per pupil across the United States was 0.13 (table 6-3). Variation across the states ranged from a low of 0.03 in Nevada to a high of 0.16 in Vermont. Three states (Alaska, Montana, and Vermont) had a Gini coefficient higher than the coefficient for the United States.

Cost-of-education adjustments reduced the Gini coefficient across the United States to 0.11 (table 6-4). Alaska, Montana, and Vermont still exceeded the United States level of variation, and Illinois and New Hampshire joined the group. After adjustments, the Gini coefficient still ranged from a low of 0.03 in Nevada to a high of 0.17 in Vermont.

Table 6-3. Variation in total revenues per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	1.05	†	0.25	†	0.13	†	†	†
Alabama	0.32	7	0.11	10	0.05	3	6.67	1
Alaska	1.28	48	0.36	49	0.15	48	48.33	4
Arizona	0.76	43	0.19	35	0.08	28	35.33	3
Arkansas	0.45	23	0.11	10	0.05	3	12.00	2
California	0.44	22	0.13	21	0.07	21	21.33	2
Colorado	0.38	12	0.11	10	0.05	3	8.33	1
Connecticut	0.49	26	0.14	23	0.07	21	23.33	2
Delaware	0.46	24	0.09	2	0.05	3	9.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.26	3	0.09	2	0.05	3	2.67	1
Georgia	0.67	37	0.15	24	0.08	28	29.67	3
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.46	24	0.15	24	0.07	21	23.00	2
Illinois	1.24	47	0.28	46	0.13	46	46.33	4
Indiana	0.43	19	0.12	17	0.07	21	19.00	2
Iowa	0.26	3	0.10	4	0.04	2	3.00	1
Kansas	0.59	31	0.18	32	0.08	28	30.33	3
Kentucky	0.25	2	0.08	1	0.05	3	2.00	1
Louisiana	0.31	6	0.10	4	0.05	3	4.33	1
Maine	0.56	28	0.18	32	0.08	28	29.33	3
Maryland	0.52	27	0.12	17	0.06	13	19.00	2
Massachusetts	0.71	41	0.19	35	0.10	38	38.00	4
Michigan	0.69	39	0.17	30	0.09	35	34.67	3
Minnesota	0.70	40	0.23	43	0.09	35	39.33	4
Mississippi	0.40	14	0.11	10	0.06	13	12.33	2
Missouri	0.96	45	0.23	43	0.12	45	44.33	4
Montana	1.11	46	0.31	47	0.14	47	46.67	4
Nebraska	0.56	28	0.15	24	0.08	28	26.67	3
Nevada	0.19	1	0.10	4	0.03	1	2.00	1
New Hampshire	0.72	42	0.20	38	0.11	43	41.00	4
New Jersey	0.65	34	0.16	28	0.09	35	32.33	3
New Mexico	0.65	34	0.18	32	0.08	28	31.33	3
New York	0.64	33	0.20	38	0.10	38	36.33	4
North Carolina	0.34	8	0.10	4	0.05	3	5.00	1
North Dakota	0.68	38	0.27	45	0.10	38	40.33	4
Ohio	0.66	36	0.20	38	0.11	43	39.00	4
Oklahoma	0.43	19	0.13	21	0.06	13	17.67	2
Oregon	0.35	10	0.12	17	0.06	13	13.33	2
Pennsylvania	0.57	30	0.15	24	0.08	28	27.33	3
Rhode Island	0.27	5	0.10	4	0.05	3	4.00	1
South Carolina	0.39	13	0.11	10	0.06	13	12.00	2
South Dakota	0.43	19	0.17	30	0.07	21	23.33	2
Tennessee	0.40	14	0.11	10	0.06	13	12.33	2
Texas	0.41	16	0.22	41	0.07	21	26.00	3
Utah	0.42	17	0.16	28	0.07	21	22.00	2
Vermont	1.40	49	0.31	47	0.16	49	48.33	4
Virginia	0.62	32	0.19	35	0.10	38	35.00	3
Washington	0.42	17	0.12	17	0.06	13	15.67	2
West Virginia	0.34	8	0.10	4	0.05	3	5.00	1
Wisconsin	0.36	11	0.11	10	0.06	13	11.33	1
Wyoming	0.76	43	0.22	41	0.10	38	40.67	4

†Not applicable.

[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 6-4. Variation in total revenues per pupil (cost-adjusted dollars), by state: 1997–98

	Restricted range ratio		Coefficient of variation		Gini coefficient		Average	Average
State	Value	Rank	Value	Rank	Value	Rank	rank	quartile
United States	0.90	†	0.22	†	0.11	†	†	†
Alabama	0.32	7	0.11	6	0.06	10	7.67	1
Alaska	1.28	47	0.34	47	0.15	47	47.00	4
Arizona	0.75	40	0.21	37	0.09	32	36.33	4
Arkansas	0.34	8	0.10	4	0.05	3	5.00	1
California	0.47	22	0.14	21	0.07	23	22.00	2
Colorado	0.39	15	0.14	21	0.06	10	15.33	2
Connecticut	0.48	23	0.14	21	0.08	26	23.33	2
Delaware	0.45	20	0.09	3	0.05	3	8.67	1
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.22	1	0.08	1	0.04	2	1.33	1
Georgia	0.49	25	0.12	17	0.06	10	17.33	2
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	0.57	30	0.16	27	0.08	26	27.67	3
Illinois	1.14	46	0.25	44	0.12	45	45.00	4
Indiana	0.41	19	0.11	6	0.06	10	11.67	2
Iowa	0.29	3	0.12	17	0.05	3	7.67	1
Kansas	0.68	36	0.22	40	0.10	38	38.00	4
Kentucky	0.31	5	0.08	1	0.05	3	3.00	1
Louisiana	0.29	3	0.10	4	0.05	3	3.33	1
Maine	0.75	40	0.20	34	0.09	32	35.33	3
Maryland	0.39	15	0.11	6	0.06	10	10.33	2
Massachusetts	0.68	36	0.19	32	0.10	38	35.33	3
Michigan	0.54	28	0.14	21	0.07	23	24.00	2
Minnesota	0.49	25	0.23	41	0.08	26	30.67	3
Mississippi	0.37	13	0.11	6	0.06	10	9.67	2
Missouri	0.96	45	0.20	34	0.10	38	39.00	4
Montana	1.30	48	0.35	49	0.15	47	48.00	4
Nebraska	0.72	39	0.21	37	0.10	38	38.00	4
Nevada	0.25	2	0.11	6	0.03	1	3.00	1
New Hampshire	0.91	44	0.24	43	0.12	45	44.00	4
New Jersey	0.66	35	0.16	27	0.09	32	31.33	3
New Mexico	0.69	38	0.20	34	0.08	26	32.67	3
New York	0.61	32	0.19	32	0.10	38	34.00	3
North Carolina	0.31	5	0.11	6	0.05	3	4.67	1
North Dakota	0.82	42	0.31	46	0.11	43	43.67	4
Ohio	0.54	28	0.17	29	0.09	32	29.67	3
Oklahoma	0.60	31	0.18	31	0.08	26	29.33	3
Oregon	0.35	10	0.15	25	0.06	10	15.00	2
Pennsylvania	0.48	23	0.12	17	0.06	10	16.67	2
Rhode Island	0.36	11	0.11	6	0.06	10	9.00	1
South Carolina	0.37	13	0.11	6	0.06	10	9.67	2
South Dakota	0.63	33	0.21	37	0.09	32	34.00	3
Tennessee	0.36	11	0.11	6	0.06	10	9.00	1
Texas	0.65	34	0.27	45	0.09	32	37.00	4
Utah	0.46	21	0.17	29	0.07	23	24.33	3
Vermont	1.56	49	0.34	47	0.17	49	48.33	4
Virginia	0.51	27	0.15	25	0.08	26	26.00	3
Washington	0.39	15	0.13	20	0.06	10	15.00	2
West Virginia	0.34	8	0.11	6	0.05	3	5.67	1
Wisconsin	0.39	15	0.11	6	0.06	10	10.33	2
Wyoming	0.85	43	0.23	41	0.11	43	42.33	4

†Not applicable.

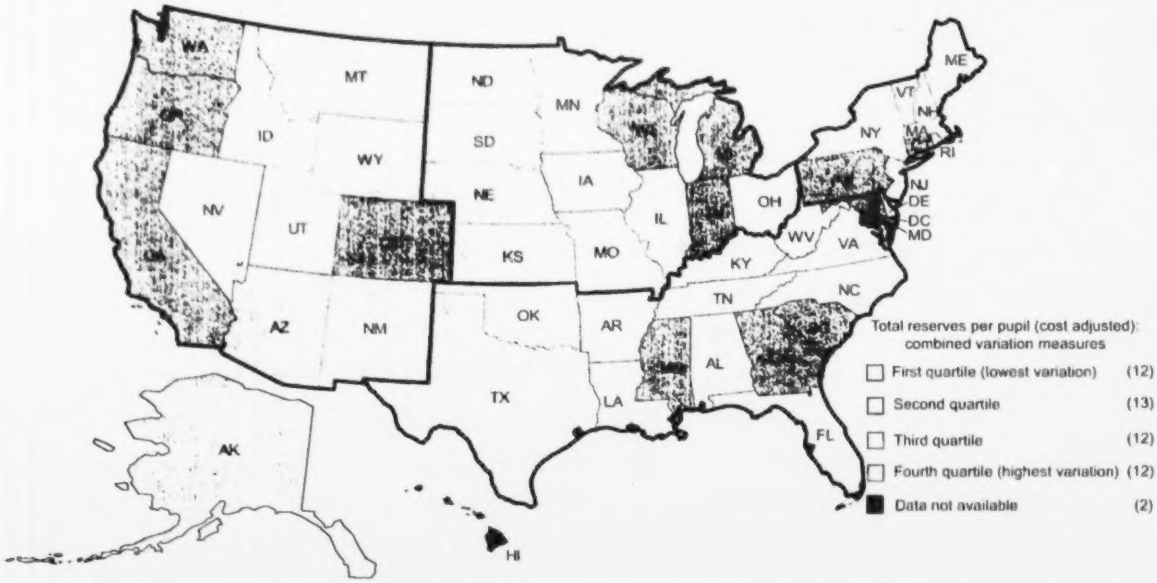
[1] Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Overall Variation

In a synthesis of the three unadjusted variation measures, the South had the lowest variation, while the Northeast had the highest (figure 6-1). The West had neither high nor low interdistrict variation, with about half the states falling into the two lowest-variation quartiles when ranked with states across the country (table 6-5). Four-fifths (81 percent) of the Southern states fell into the two quartiles with lowest variation, while two-thirds of the Northeastern and Midwestern states (67 percent each) fell into the two quartiles with highest variation after cost adjustments.

Figure 6-1. Synthesis of variation measures of total revenues per pupil (cost-adjusted dollars), by state: 1997–98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Total reserves per pupil (cost adjusted): combined variation measures
☐ First quartile (lowest variation) (12)
☐ Second quartile (13)
☐ Third quartile (12)
☐ Fourth quartile (highest variation) (12)
■ Data not available (2)

NOTE: Variation is not measured in Hawaii or the District of Columbia where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 6-5. Variation in total revenues per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted total revenues per pupil		
Northeast	22	78
Midwest	33	67
South	81	19
West	58	42
Cost-adjusted total revenues per pupil		
Northeast	33	67
Midwest	33	67
South	81	19
West	42	58

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

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In unadjusted dollars, states with small variation on one measure also demonstrated small variation on the other two measures with three notable exceptions: Arkansas, Delaware, and Texas. Arkansas showed very low variation relative to the other states on the Gini coefficient (ranked 3rd) but a mid-level restricted range ratio (ranked 23rd). Delaware was similar, with small variation when measured by the coefficient of variation (ranked 2nd) and the Gini coefficient (tied with Arkansas for 3rd rank), but a rank of 24th when the restricted range ratio was used. In Texas, the case was a bit different in that the restricted range ratio was the smallest of the three measures (ranked 16th) and similar to the Gini coefficient (ranked 21st), but the coefficient of variation was in the lowest quartile (ranked 41st). Cost-of-education adjustments reduced these discrepancies in all three states.

Relationship between Total Revenue Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, total revenues per pupil in unadjusted dollars showed a positive relationship with a school district's median household income (+0.30) and its median value owner-occupied housing (+0.29) (table A-24). Similarly, at the state level, owner-occupied housing value was positively related to total revenues per pupil in nearly half of the 40 states with available data; the relationship was strongly positive in 5 states (Florida, Illinois, Maryland, Pennsylvania, and Virginia) (table 6-6). In contrast, median household income was not as strongly related to total revenues per pupil. Twenty-three of the 40 states with available data showed no statistically significant relationship between district income and total revenues per pupil, 8 states showed a moderate negative relationship between income and revenues, and four states showed a moderate positive relationship. In only four states (Louisiana, Maryland, New York, and Virginia) was median household income strongly related to a district's total revenues per pupil.

After cost adjustments, the strength of the relationship between district wealth and total revenues per pupil decreased for the United States as a whole, and the relationship with housing value also changed from positive to negative. The national cost-adjusted correlation with median household income was +0.05; the national cost-adjusted correlation with owner-occupied housing value was -0.03 (table A-25). Adjusted total revenues per pupil continued to show a strong positive relationship with a district's median value owner-occupied housing in only two states (Maryland and Virginia) and a moderate positive relationship in only five other states (Alabama, Illinois, Michigan, Ohio, and Pennsylvania) (figure 6-2). No states showed a strong positive relationship between a district's median household income and adjusted total revenues per pupil, and only seven states (Illinois, Louisiana, Maryland, Michigan, New York, Pennsylvania, and Virginia) showed a moderate positive relationship between these variables. However, in over half the states reporting data (21), there was a moderate negative relationship between median household income and total revenues per pupil (figure 6-3).

Total revenues per pupil showed a weak relationship with minority enrollment for the United States as a whole, both before (+0.08) and after cost adjustments (-0.04) (table 6-6). This was the case in most states as well. Six states (Alaska, Arizona, Massachusetts, Missouri, Ohio, and Utah) showed a strong positive relationship between minority enrollment and total revenues per pupil before cost adjustments and four states (Alaska, Arizona, Massachusetts, and Missouri) showed this relationship after cost adjustments (figure 6-4). New York was the only state to show a strong negative relationship between minority enrollment and total revenues per pupil, and this was after cost adjustments only.

The percent of school-age children in poverty in a district also showed very little relationship with total revenues per pupil, both at the national level and in the states. The national correlation between percent

Table 6-6. Correlations between total revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Arizona, Massachusetts, Missouri, Ohio, Utah	Alaska, Arizona, Massachusetts, Missouri
Moderate positive relationship	California, Connecticut, Indiana, Iowa, Michigan, Minnesota, Montana, North Dakota, Oregon, South Carolina, Tennessee, Washington, Wisconsin, Wyoming	California, Connecticut, Indiana, Michigan, Minnesota, Montana, North Dakota, Ohio,[1] Oregon, South Carolina, Tennessee, Utah,[1] Washington, Wyoming
Weak positive relationship	Illinois, *US overall*	[none]
Weak negative relationship	Texas	Pennsylvania,[1] *US overall*[2]
Moderate negative relationship	New York	Iowa,[1] Kansas,[1] Nebraska,[1] New Hampshire,[1] Texas[1]
Strong negative relationship	[none]	New York[1]
No significant relationship	Alabama, Delaware, Florida, Idaho, Kansas, Louisiana, Maine, Maryland, Nebraska, Nevada, New Hampshire, North Carolina, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia	Alabama, Delaware, Florida, Idaho, Illinois,[1] Louisiana, Maine, Maryland, Nevada, North Carolina, Rhode Island, Vermont, Virginia, West Virginia, Wisconsin[1]
School-age children in poverty		
Strong positive relationship	Alaska, Utah	Alaska, Missouri,[1] Utah
Moderate positive relationship	Arizona, California, Connecticut, Indiana, Massachusetts, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, Tennessee, Wisconsin, Wyoming	Arizona, California, Connecticut, Florida,[1] Indiana, Iowa,[1] Kansas,[1] Massachusetts, Minnesota, Montana, Nebraska, North Carolina,[1] North Dakota, Ohio, Oregon, South Carolina,[1] Tennessee, Texas,[1] Washington,[1] Wisconsin, Wyoming
Weak positive relationship	Texas	[none]
Weak negative relationship	*US overall*	[none]
Moderate negative relationship	Alabama, Illinois, Louisiana, New York, Pennsylvania	Illinois, Louisiana
Strong negative relationship	[none]	New York[1]
No significant relationship	Delaware, Florida, Idaho, Iowa, Kansas, Maine, Maryland, Michigan, Nevada, New Hampshire, North Carolina, Rhode Island, South Carolina, Vermont, Virginia, Washington, West Virginia	Alabama,[1] Delaware, Idaho, Maine, Maryland, Michigan, Nevada, New Hampshire, Pennsylvania,[1] Rhode Island, Vermont, Virginia, West Virginia, *US overall*[2]
Median household income		
Strong positive relationship	Louisiana, Maryland, New York, Virginia	[none]
Moderate positive relationship	Alabama, Illinois, Michigan, Pennsylvania, *US overall*	Illinois, Louisiana,[1] Maryland,[1] Michigan, New York,[1] Pennsylvania, Virginia[1]
Weak positive relationship	Ohio	*US overall*[2]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Alaska, Arizona, California, Massachusetts, Montana, Nebraska, North Dakota, Utah	Alaska, Arizona, California, Indiana,[1] Iowa,[1] Kansas,[1] Maine,[1] Massachusetts, Minnesota,[1] Missouri,[1] Montana, Nebraska, North Carolina,[1] North Dakota, Oregon,[1] Tennessee,[1] Texas,[1] Utah, Washington,[1] West Virginia,[1] Wisconsin[1]
Strong negative relationship	[none]	[none]
No significant relationship	Connecticut, Delaware, Florida, Idaho, Indiana, Iowa, Kansas, Maine, Minnesota, Missouri, Nevada, New Hampshire, North Carolina, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Washington, West Virginia, Wisconsin, Wyoming	Alabama,[1] Connecticut, Delaware, Florida, Idaho, Nevada, New Hampshire, Ohio,[1] Rhode Island, South Carolina, Vermont, Wyoming
Median value owner-occupied housing		
Strong positive relationship	Florida, Illinois, Maryland, Pennsylvania, Virginia	Maryland, Virginia
Moderate positive relationship	Alabama, Indiana, Louisiana, Massachusetts, Michigan, New Hampshire, New York, North Carolina, Ohio, Vermont, Washington, Wisconsin, *US overall*	Alabama, Illinois,[1] Michigan, Ohio, Pennsylvania[1]
Weak positive relationship	California, Missouri	[none]
Weak negative relationship	[none]	*US overall*[2]
Moderate negative relationship	Arizona, Montana, Nebraska, North Dakota	Arizona, California,[1] Iowa,[1] Kansas,[1] Maine,[1] Minnesota,[1] Missouri,[1] Montana, Nebraska, North Dakota, Oregon,[1] Tennessee,[1] Texas,[1] Washington,[1] Wisconsin[1]
Strong negative relationship	Alaska, Nevada	Alaska, Nevada
No significant relationship	Connecticut, Delaware, Idaho, Iowa, Kansas, Maine, Minnesota, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Utah, West Virginia, Wyoming	Connecticut, Delaware, Florida,[1] Idaho, Indiana,[1] Louisiana,[1] Massachusetts,[1] New Hampshire,[1] New York,[1] North Carolina,[1] Rhode Island, South Carolina, Utah, Vermont,[1] West Virginia, Wyoming

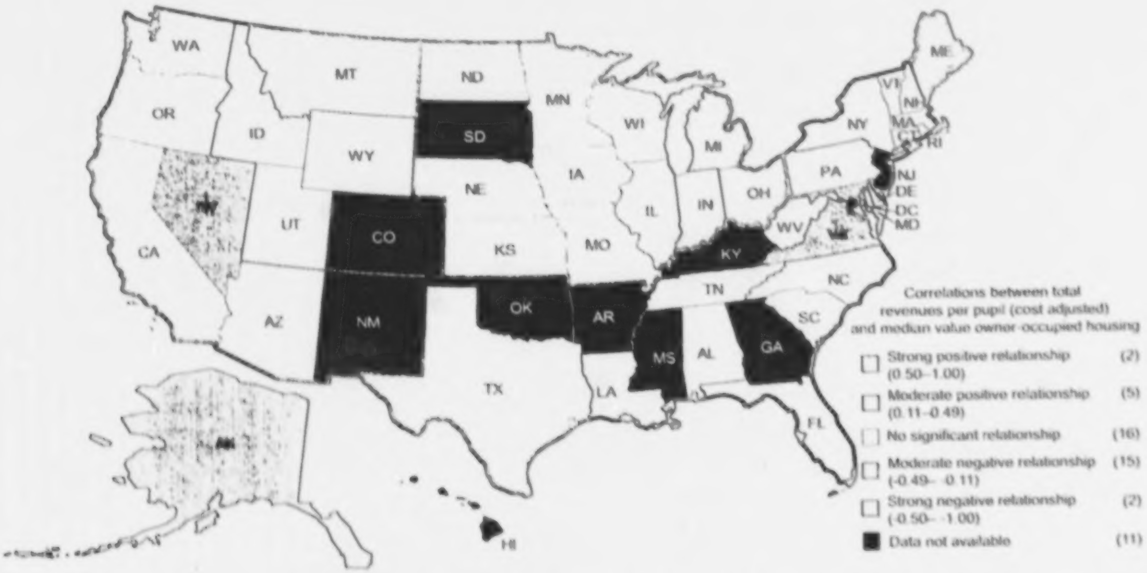
Table 6-6. Correlations between total revenues per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Georgia, Indiana, Michigan, Ohio	[none]
Weak positive relationship	[none]	[none]
Weak negative relationship	Iowa, *US overall*	Nebraska,[1] *US overall*
Moderate negative relationship	Alaska, Arizona, Colorado, Idaho, Kansas, Maine, Montana, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, South Dakota, Texas, Utah, Vermont, Washington, Wyoming	Alabama,[1] Alaska, Arizona, Arkansas,[1] Colorado, Connecticut,[1] Idaho, Iowa,[1] Kansas, Maine, Minnesota,[1] Mississippi,[1] Missouri,[1] Montana, New Hampshire, New Jersey,[1] New Mexico, North Carolina, North Dakota,[1] Oklahoma, Oregon, South Carolina,[1] South Dakota, Texas, Utah, Vermont, Washington, Wisconsin,[1] Wyoming
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Arkansas, California, Connecticut, Delaware, Florida, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin	California, Delaware, Florida, Georgia,[1] Illinois, Indiana,[1] Kentucky, Louisiana, Maryland, Massachusetts, Michigan,[1] Nevada, New York, Ohio,[1] Pennsylvania, Rhode Island, Tennessee, Virginia, West Virginia

[1] State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997-98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 6-2. Correlations between total revenues per pupil and median value owner-occupied housing (cost-adjusted dollars), by state: 1997–98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Correlations between total revenues per pupil (cost adjusted) and median value owner-occupied housing
☐ Strong positive relationship (0.50–1.00) (2)
☐ Moderate positive relationship (0.11–0.49) (5)
☐ No significant relationship (16)
☐ Moderate negative relationship (-0.49– -0.11) (15)
☐ Strong negative relationship (-0.50– -1.00) (2)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green: Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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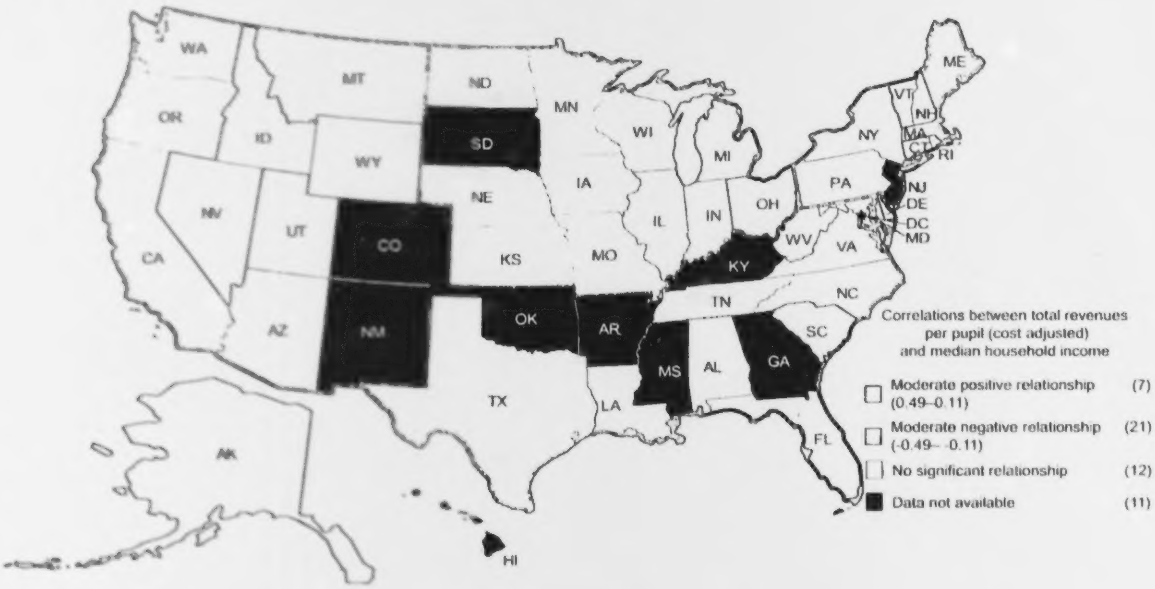
school-age children in poverty and total revenues per pupil was -0.08 before cost adjustments and not statistically significant after cost adjustments. Only two states (Alaska and Utah) showed a strong positive relationship between children in poverty and total revenues per pupil before cost adjustments and only three states (Alaska, Missouri, and Utah) showed this relationship after cost adjustments. Again, New York was the only state to show a strong negative relationship between children in poverty and total revenues per pupil, after cost adjustments to revenues (figure 6-5).

Figure 6-3. Correlations between total revenues per pupil and median household income (cost-adjusted dollars), by state: 1997–98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HI
Correlations between total revenues per pupil (cost adjusted) and median household income
☐ Moderate positive relationship (0.49–0.11) (7)
☐ Moderate negative relationship (-0.49– -0.11) (21)
☐ No significant relationship (12)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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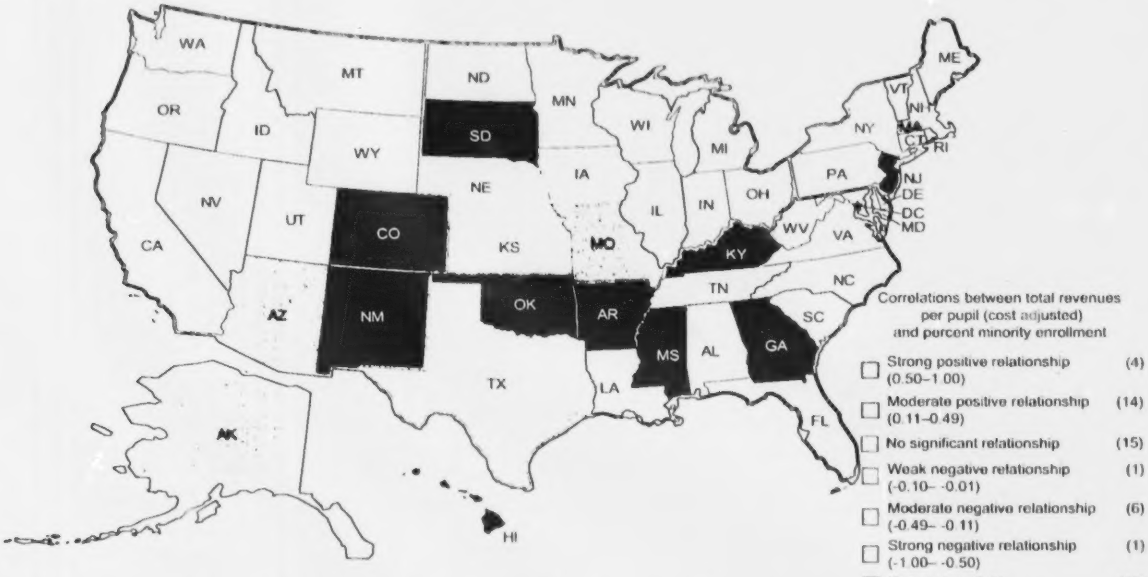
Figure 6-4. Correlations between total revenues per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98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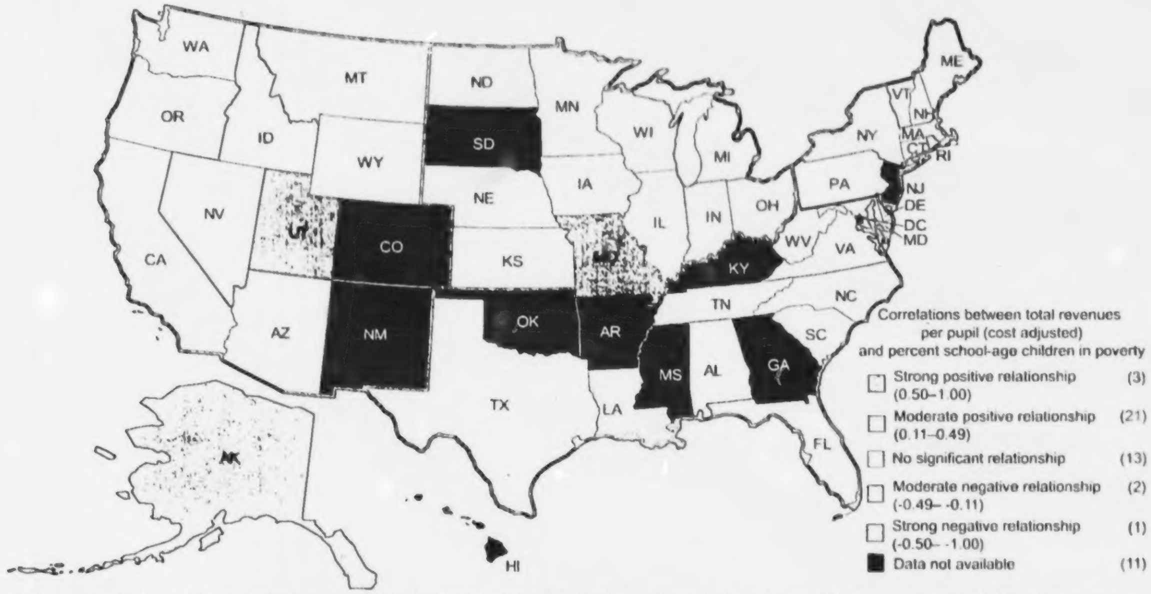
Correlations between total revenues per pupil (cost adjusted) and percent minority enrollment
☐ Strong positive relationship (0.50–1.00) (4)
☐ Moderate positive relationship (0.11–0.49) (14)
☐ No significant relationship (15)
☐ Weak negative relationship (-0.10– -0.01) (1)
☐ Moderate negative relationship (-0.49– -0.11) (6)
☐ Strong negative relationship (-1.00– -0.50) (1)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 6-5. Correlations between total revenues per pupil and percent school-age children in poverty (cost-adjusted dollars), by state: 1997–98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Correlations between total revenues per pupil (cost adjusted) and percent school-age children in poverty
☐ Strong positive relationship (0.50–1.00) (3)
☐ Moderate positive relationship (0.11–0.49) (21)
☐ No significant relationship (13)
☐ Moderate negative relationship (-0.49– -0.11) (2)
☐ Strong negative relationship (-0.50– -1.00) (1)
■ Data not available (11)

NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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Chapter 7: Summary of Findings

This report examined school district revenues for elementary and secondary education during the 1997–98 school year. Separate chapters were devoted to local revenues, state revenues, state and local revenues, federal revenues, and total revenues. This chapter synthesizes the material presented previously and highlights the key findings of the report.

National Findings about Education Revenues

School district revenues for elementary and secondary education totaled $321.6 billion in 1997–98 (table 6-1). State governments provided the largest share of total school district revenues—nearly $155 billion, or 48.1 percent of the total. Local governments provided the second-largest share—nearly $147 billion, or 45.7 percent of the total. The federal government provided the remainder—about $20.1 billion, or 6.3 percent of the total.

Regional Differences in School District Revenues Per Pupil

Local revenues, state and local revenues, and total revenues per pupil in unadjusted dollars were highest in the Northeast, while state revenues per pupil were highest in the West and federal revenues per pupil were highest in the South (table 7-1). State revenues, state and local revenues, and total revenues per pupil were lowest in the South, with local revenues per pupil lowest in the West and federal revenues per pupil lowest in the Midwest.

Table 7-1. Regional differences in school district revenues per pupil: 1997–98

Characteristics	Local revenues per pupil	State revenues per pupil	State and local revenues per pupil	Federal revenues per pupil	Total revenues per pupil
			Unadjusted dollars		
Highest region	Northeast	West	Northeast	South	Northeast
Lowest region	West	South	South	Midwest	South
			Cost-adjusted dollars		
Highest region	Northeast	Midwest	Northeast	South	Northeast
Lowest region	West	Northeast	West	Northeast	West

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial School District Special Tabulation.

With cost adjustments, local revenues, state and local revenues, and total revenues per pupil were still highest in the Northeast and federal revenues per pupil were highest in the South (table 7-1). However, the Midwest replaced the West as the region with the highest state revenues per pupil. The West remained the region with the lowest local revenues per pupil, but the Northeast replaced the South as the region with the lowest state revenues per pupil and the Midwest as the region with the lowest federal revenues per pupil. The West also replaced the South as the region with the lowest state and local revenues and total revenues per pupil.

Differences in Revenues Per Pupil in Districts of Different Size

Revenues per pupil were generally highest in small school districts and lowest in large districts (table 7-2). In unadjusted dollars, state revenues, state and local revenues, and total revenues per pupil were highest in districts with fewer than 1,000 students and local revenues per pupil were highest in districts with between 1,000 and 5,000 students. Only, federal revenues per pupil were highest in the largest districts—districts with over 10,000 students. Local revenues, state and local revenues, and total revenues per pupil were lowest in the largest districts, while state and federal revenues per pupil were lowest in districts with between 1,000 and 5,000 students.

Table 7-2. School district revenues per pupil, by district size: 1997–98

Characteristics	Local revenues per pupil	State revenues per pupil	State and local revenues per pupil	Federal revenues per pupil	Total revenues per pupil
			Unadjusted dollars		
Highest group	1,000–4,999	0–999	0–999	10,000 and over	0–999
Lowest group	10,000 and over	1,000–4,999	10,000 and over	1,000–4,999	10,000 and over
			Cost-adjusted dollars		
Highest group	0–999	0–999	0–999	0–999	0–999
Lowest group	10,000 and over	5,000–9,999	10,000 and over	5,000–9,999	10,000 and over

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

With cost adjustments, the smallest school districts (those with less than 1,000 students) had the highest revenues per pupil from local, state and federal sources, as well as the highest state and local revenues and total revenues per pupil. Larger school districts, in contrast, tended to have the lowest revenues per pupil. Local revenues, state and local revenues, and total revenues per pupil were lowest in districts with over 10,000 students, while state and federal revenues per pupil were lowest in districts with between 5,000 and 10,000 students.

Variation in Revenues Per Pupil Across School Districts

Three different statistics were used to measure the extent of variation in revenues per pupil in school districts across the nation: the restricted range ratio, the coefficient of variation, and the Gini coefficient. Table 7-3 summarizes variation in local, state, federal, state and local, and total revenues per pupil in both unadjusted and cost-adjusted dollars on the three measures.

Table 7-3. Variation in school district revenues per pupil: 1997–98

Variation measure	Local revenues per pupil	State revenues per pupil	State and local revenues per pupil	Federal revenues per pupil	Total revenues per pupil
			Unadjusted dollars		
Restricted range ratio	6.19	3.37	1.18	7.13	1.05
Coefficient of variation	0.64	0.39	0.27	0.79	0.25
Gini coefficient	0.32	0.21	0.13	0.34	0.13
			Cost-adjusted dollars		
Restricted range ratio	5.39	3.79	0.95	7.54	0.90
Coefficient of variation	0.59	0.39	0.23	0.81	0.22
Gini coefficient	0.30	0.21	0.12	0.34	0.11

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Of the five major revenue measures examined in this report, federal revenues per pupil showed the greatest variation across school districts, in both unadjusted and cost-adjusted dollars. As shown in table 7-3, the restricted range ratio for unadjusted federal revenues per pupil was 7.13, the coefficient of variation was 0.79, and the Gini coefficient was 0.34. (Federal revenues in the district at the 95th percentile were 6.19 times higher than local revenues in the district at the 5th percentile, approximately two-thirds of the districts nationally have local revenues per pupil within 64 percent below or above the mean, and revenues are more concentrated among a smaller share of students.) The figures in cost-adjusted dollars were 7.54, 0.81, and 0.34, respectively.

Local revenues per pupil had the second-largest variation. State revenues per pupil showed less variation than federal and local revenues per pupil but varied more than state and local revenues and total revenues per pupil.

Total revenues per pupil showed the smallest variation across school districts. In unadjusted dollars, the restricted range ratio was 1.05, the coefficient of variation was 0.25, and the Gini coefficient was 0.13. In cost-adjusted dollars, the figures were 0.90, 0.22, and 0.11, respectively.

The findings about variation in total and federal revenues per pupil were consistent with expectations, since national average total revenues per pupil ($7,047) were nearly 16 times higher than average federal revenues per pupil ($441). However, the small differences in average state and local revenues per pupil ($3,388 and $3,219, respectively) demonstrate that school districts vary more in local tax revenues than they do in state funding for education. Local revenues for education are high in some states and low in others.

Relationship between School District Fiscal and Demographic Characteristics and Revenues Per Pupil

School District Wealth

The two measures of district wealth used in the analysis—median household income and median value of owner-occupied housing—both showed positive relationships with unadjusted local revenues, state and local revenues, and total revenues per pupil and negative relationships with unadjusted state and federal revenues per pupil (table 7-4). Wealthier school districts raised more money per pupil from local sources and received less state and federal revenues per pupil than poorer districts. Although state and federal aid partially offset the local revenue of wealthier school districts, wealthier districts still had higher state and local and total revenues per pupil than poorer districts.

With cost adjustments to revenues school districts with higher incomes and housing values still had higher local revenues per pupil, although the relationships were not as strong as they were with unadjusted local revenues per pupil. There were stronger negative relationships between district income and housing values and state and federal revenues per pupil. As a result, the relationship between district income and state and local revenues per pupil was reduced and the relationship between district income and total revenues per pupil was eliminated. The relationship between district housing values and state and local revenues per pupil also decreased and the relationship between housing values and total revenues per pupil became negative. In other words, with cost adjustments, state and federal aid was greater than the local revenue of wealthier districts, resulting in only a small positive relationship between local wealth and state and local revenues per pupil and no relationship between local wealth and total revenues per pupil for education.

Table 7-4. Correlation between school district revenues per pupil and selected district fiscal and demographic characteristics: 1997–98

School district characteristics	Local revenues per pupil	State revenues per pupil	State and local revenues per pupil	Federal revenues per pupil	Total revenues per pupil
			Unadjusted dollars		
Median household income	+0.53	-0.31	+0.39	-0.46	+0.30
Median value owner-occupied housing	+0.35	-0.12	+0.32	-0.15	+0.29
Percent minority enrollment	-0.16	+0.20	-0.04	+0.56	+0.08
Percent children in poverty	-0.39	+0.32	-0.22	+0.66	-0.08
			Cost-adjusted dollars		
Median household income	+0.45	-0.44	+0.17	-0.50	+0.05
Median value owner-occupied housing	+0.23	-0.30	+0.03	-0.23	-0.03
Percent minority enrollment	-0.20	+0.10	-0.16	+0.49	-0.04
Percent children in poverty	-0.38	+0.35	-0.16	+0.65	(*)

*Relationship not significant at the 0.05 level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial School District Special Tabulation.

School District Poverty and Minority Enrollments

The two district demographic characteristics used in this analysis—percent minority enrollment and percent children in poverty—both were negatively related to unadjusted local revenues per pupil and positively related to unadjusted state and federal revenues per pupil (table 7-4). School districts with larger minority and poverty populations raised less money from local sources and received higher state and federal aid per pupil than districts with smaller minority and poverty populations. Since higher state and federal aid were larger for districts with lower local revenues per pupil, there was a weak relationship between minority enrollment and state and local revenues per pupil and a weak positive relationship between minority enrollment and total revenues per pupil. The percent of children in poverty in a district had a negative relationship with both state and local revenues per pupil and total revenues per pupil.

With cost adjustments to revenues, these patterns were generally maintained. School districts with larger minority and poverty populations had lower local revenues per pupil and higher state and federal revenues per pupil. As a result, there was only a weak negative relationship between minority enrollment and both state and local revenues and total revenues per pupil. There a weak negative relationship between district poverty and state and local revenues per pupil and no statistically significant relationship between district poverty and total revenues per pupil.

State Findings about Education Revenues

In the analyses of variation in per pupil revenues presented in chapters 2 to 6 of the report, the three individual measures of variation in revenues per pupil were integrated into an overall measure of variation based on an average of state rankings on the three individual measures. Each state's average on the three variation measures was then ranked, with states divided into four quartiles from lowest to highest variation. The first part of discussion below highlights differences in state variation on the different measures of revenues per pupil. The second part of the discussion reviews key findings about the relationship between selected district fiscal and demographic characteristics and revenues per pupil from different sources.

Interdistrict Variation in Revenues Per Pupil within the States

The 12 states with the greatest interdistrict variation in unadjusted total revenues per pupil based on the integrated measure of variation included: Alaska, Illinois, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, New York, North Dakota, Ohio, Vermont, and Wyoming (table 7-5). One state, Illinois, was also in the quartile of states with the greatest interdistrict variation in the other four measures of revenues per pupil. Four other states, Alaska, New York, Vermont, and Wyoming, were in the quartile of states with the greatest interdistrict variation on three other measures of revenues per pupil.

When revenues per pupil were adjusted to reflect cost-of-education differences across school districts, eight states (Alaska, Illinois, Missouri, Montana, New Hampshire, North Dakota, Vermont, and Wyoming) remained in the quartile with the greatest overall variation in total revenues per pupil. However, Arizona, Kansas, Nebraska, and Texas replaced Massachusetts, Minnesota, New York, and Ohio in this group of states with the largest interdistrict variation. Illinois continued to show the greatest variation on the four other measures of revenues per pupil, with Alaska, Kansas, Vermont, and Wyoming showing the greatest variation on three other measures of revenues per pupil.

The 12 states with the smallest interdistrict variation in unadjusted total revenues per pupil included: Alabama, Colorado, Delaware, Florida, Iowa, Kentucky, Louisiana, Nevada, North Carolina, Rhode Island, West Virginia, and Wisconsin (table 7-6). Within this group, two states, Iowa and North Carolina, were also in the quartile of states with the smallest interdistrict variation on the four other measures of revenues per pupil. Three other states, Delaware, Florida, and West Virginia, were in the quartile of states with the smallest interdistrict variation on three other measures of revenues per pupil.

Table 7-5. States with the largest overall variation in revenues per pupil: 1997–98

Local revenues per pupil	State revenues per pupil	State and local revenues per pupil	Federal revenues per pupil	Total revenues per pupil
		Unadjusted dollars		
Alaska	Connecticut	Alaska	Alaska	Alaska
Connecticut	Illinois	Illinois	Arizona	Illinois
Idaho	Massachusetts	Kansas	Connecticut	Massachusetts
Illinois	Missouri	Missouri	Illinois	Minnesota
Kansas	New Hampshire	Montana	Kansas	Missouri
Massachusetts	New Jersey	New Hampshire	Michigan	Montana
Michigan	New York	New York	Minnesota	New Hampshire
New Jersey	Ohio	North Dakota	Montana	New York
New York	Rhode Island	Ohio	North Dakota	North Dakota
Texas	Texas	Vermont	Pennsylvania	Ohio
Wyoming	Vermont	Virginia	South Dakota	Vermont
	Wyoming	Wyoming	Vermont	Wyoming
		Cost-adjusted dollars		
Alaska	Connecticut	Alaska	Alaska	Alaska
Arizona	Illinois	Illinois	Arizona	Arizona
California	Massachusetts	Kansas	Connecticut	Illinois
Connecticut	Missouri	Montana	Illinois	Kansas
Idaho	New Hampshire	Nebraska	Kansas	Missouri
Illinois	New Jersey	New Hampshire	Michigan	Montana
Kansas	New York	New Mexico	Minnesota	Nebraska
Massachusetts	Texas	New York	Montana	New Hampshire
Michigan	Vermont	North Dakota	North Dakota	North Dakota
New Jersey	Wyoming	Vermont	Pennsylvania	Texas
Texas		Wyoming	South Dakota	Vermont
Wyoming			Vermont	Wyoming

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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Table 7-6. States with the smallest overall variation in revenues per pupil: 1997–98

Local revenues per pupil	State revenues per pupil	State and local revenues per pupil	Federal revenues per pupil	Total revenues per pupil
		Unadjusted dollars		
Delaware	Alabama	Colorado	Alabama	Alabama
Florida	Delaware	Delaware	Arkansas	Colorado
Indiana	Georgia	Florida	Florida	Delaware
Iowa	Iowa	Iowa	Iowa	Florida
Nebraska	Louisiana	Kentucky	Kentucky	Iowa
Nevada	Michigan	Nevada	Louisiana	Kentucky
New Hampshire	Mississippi	North Carolina	Mississippi	Louisiana
North Carolina	North Carolina	Oklahoma	Nevada	Nevada
North Dakota	Oregon	Rhode Island	North Carolina	North Carolina
South Carolina	South Carolina	South Dakota	South Carolina	Rhode Island
South Dakota	Utah	West Virginia	Tennessee	West Virginia
West Virginia	Washington	Wisconsin	West Virginia	Wisconsin
		Cost-adjusted dollars		
Delaware	Alabama	Arkansas	Alabama	Alabama
Florida	Delaware	Delaware	Arkansas	Arkansas
Indiana	Indiana	Florida	Florida	Delaware
Iowa	Iowa	Indiana	Iowa	Florida
Missouri	Louisiana	Iowa	Kentucky	Iowa
Nevada	Michigan	Kentucky	Louisiana	Kentucky
New Hampshire	Mississippi	Nevada	Mississippi	Louisiana
North Carolina	North Carolina	North Carolina	Nevada	Nevada
North Dakota	South Carolina	South Carolina	North Carolina	North Carolina
South Carolina	Utah	Tennessee	South Carolina	Rhode Island
South Dakota	Washington	West Virginia	Tennessee	Tennessee
Tennessee	West Virginia	Wisconsin	Utah	West Virginia
West Virginia			West Virginia	

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

With cost adjustments to revenues, 10 states (Alabama, Delaware, Florida, Iowa, Kentucky, Louisiana, Nevada, North Carolina, Rhode Island, and West Virginia) remained in the quartile with the smallest overall variation in total revenues per pupil. However, Arkansas and Tennessee replaced Colorado and Wisconsin in this group of states with the smallest interdistrict variation. Iowa, North Carolina, and West Virginia also showed the smallest variation on the four other measures of revenues per pupil; Delaware, Florida, Nevada, and Tennessee showed the smallest variation on three other measures of revenues per pupil.

Relationship between Selected District Fiscal and Demographic Characteristics and Revenues Per Pupil

District Wealth

For the nation as a whole, the two measures of school district wealth used in this analysis—median household income and median value owner-occupied housing—were positively related to local revenues per pupil and negatively related to state and federal revenues per pupil, in both unadjusted and cost-adjusted dollars. Both measures of district wealth also showed positive relationships with unadjusted state and local revenues per pupil and total revenues per pupil, a moderate positive relationship with cost-adjusted state and local revenues per pupil, but a weak relationship with adjusted total revenues per pupil.

The patterns for the nation were found in most states for which data were available for correlation analysis. Median household income showed a positive relationship with unadjusted local revenues per pupil in 36 of the 40 states with available data, the relationship was strongly positive in 20 of the 36 states (table 7-7). In contrast, household income showed a negative relationship with unadjusted state revenues per pupil in 36 states and with unadjusted federal revenues per pupil in 38 states. With the addition of state and federal revenues, the relationship between household income and revenues for education was reduced substantially. Only 18 states showed a positive relationship between median household income and unadjusted state and local revenues per pupil and only 8 states showed a positive relationship between household income and total revenues per pupil.

Similar results were found for cost-adjusted revenues. Median household income showed a positive relationship with cost-adjusted local revenues per pupil in 34 states and a negative relationship with cost-adjusted state and federal revenues per pupil in 39 states. Again, state and federal revenues compensated for the local revenue advantages of districts with higher household income. With the addition of state funds to local revenues, only 10 states still showed a positive relationship between household income and state and local revenues per pupil. With the addition of federal revenues, only 7 states still showed this positive relationship, while in 21 other states, there was a negative relationship between household income and total revenues per pupil.

District property values, as measured by median value owner-occupied housing, showed similar relationships with district revenues (table 7-8). In unadjusted dollars, median value owner-occupied housing was positively related to local revenues per pupil in 34 of the 40 states with available data, and negatively related to state revenues and federal revenues per pupil in 39 and 33 states, respectively. With the addition of state revenues, median housing values were positively related to state and local revenues per pupil in 26 states and positively related to total revenues per pupil in only 17 states.

In cost-adjusted dollars, median value owner-occupied housing was positively related to local revenues per pupil in 35 states and negatively related to state and federal revenues per pupil in 40 and 34 states, respectively. When state and federal revenues were added to local revenues, the local revenue advan-

Table 7-7. Number of states by the strength of the correlation between median household income and various per pupil revenue measures: 1997–98

	Total number of states, by per pupil revenue measure				
Relationship	Local revenues	State revenues	State and local revenues	Federal revenues	Total revenues
			Unadjusted dollars		
Strong positive relationship	20	0	7	0	4
Moderate positive relationship	16	0	11	0	4
Weak positive relationship	0	1	2	0	1
Weak negative relationship	0	1	0	0	0
Moderate negative relationship	0	16	2	12	8
Strong negative relationship	0	20	0	26	0
No significant relationship	4	2	18	2	23
			Cost-adjusted dollars		
Strong positive relationship	17	0	2	0	0
Moderate positive relationship	17	0	8	0	7
Weak positive relationship	0	0	0	0	0
Weak negative relationship	0	0	0	0	0
Moderate negative relationship	1	13	9	11	21
Strong negative relationship	0	26	0	28	0
No significant relationship	5	1	21	1	12

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Table 7-8. Number of states by the strength of the correlation between median value owner-occupied housing and various per pupil revenue measures: 1997–98

	Total number of states, by per pupil revenue measure				
Relationship	Local revenues	State revenues	State and local revenues	Federal revenues	Total revenues
			Unadjusted dollars		
Strong positive relationship	20	0	7	0	5
Moderate positive relationship	14	0	19	0	12
Weak positive relationship	0	0	0	1	2
Weak negative relationship	0	0	0	0	0
Moderate negative relationship	1	14	4	17	4
Strong negative relationship	0	25	1	16	2
No significant relationship	5	1	9	6	15
			Cost-adjusted dollars		
Strong positive relationship	17	0	3	0	2
Moderate positive relationship	18	0	7	0	5
Weak positive relationship	0	0	0	0	0
Weak negative relationship	0	0	1	0	0
Moderate negative relationship	3	7	8	15	15
Strong negative relationship	0	33	1	19	2
No significant relationship	2	0	20	6	16

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

tage of districts with higher property values was overcome by larger amounts of state and federal funds in the majority of states with available data. Only 10 states continued to show a positive relationship between median housing values and cost-adjusted state and local revenues per pupil and only 7 states showed a positive relationship between median value owner-occupied housing and total revenues per pupil.

Minority Enrollment and Children in Poverty

The two district demographic characteristics used in the analysis—percent minority enrollment and percent poverty children—both showed negative relationships with unadjusted local revenues per pupil and positive relationships with unadjusted state and federal revenues per pupil. With the addition of state revenues, there was a negative relationship between children in poverty and state and local revenues per pupil and a negative relationship between percent minority enrollment and state and local revenues per pupil. With the addition of federal revenues, there was a weak negative relationship between poverty and total revenues per pupil, but the relationship between percent minority and total revenues per pupil was now positive, although weak (table 7-4).

These national patterns were reflected in some states. In unadjusted dollars, percent minority enrollment showed a negative relationship with local revenues per pupil in 16 states, a positive relationship with state revenues per pupil in 25 states, and a positive relationship with federal revenues per pupil in 36 states (table 7-9). With the addition of state revenues, there was a negative relationship between percent minority and state and local revenues per pupil in only eight states and a negative relationship with total revenues per pupil in only one state. With state and federal revenues offsetting the disadvan-

Table 7-9. Number of states by the strength of the correlation between percent minorty enrollment and various per pupil revenue measures: 1997–98

Relationship	Total number of states, by per pupil revenue measure				
	Local revenues	State revenues	State and local revenues	Federal revenues	Total revenues
			Unadjusted dollars		
Strong positive relationship	0	6	3	30	6
Moderate positive relationship	6	19	7	6	14
Weak positive relationship	0	0	0	0	1
Weak negative relationship	0	0	1	0	1
Moderate negative relationship	15	4	8	0	1
Strong negative relationship	1	1	0	0	0
No significant relationship	18	10	21	4	17
			Cost-adjusted dollars		
Strong positive relationship	1	4	2	24	4
Moderate positive relationship	2	15	4	12	14
Weak positive relationship	0	0	0	0	0
Weak negative relationship	1	0	0	0	1
Moderate negative relationship	15	8	11	0	5
Strong negative relationship	2	0	1	0	1
No significant relationship	29	13	22	4	15

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

tage in local revenues per pupil in high-minority districts, state and local revenues per pupil were positively related to percent minority enrollment in 10 states and positively related to total revenues per pupil in 20 states.

The results were generally similar—although not as a strong—using cost-adjusted revenues. Percent minority enrollment showed a negative relationship with cost-adjusted local revenues per pupil in 17 states, a positive relationship with cost-adjusted state and federal revenues per pupil in 19 states and 36 states, respectively, and a positive relationship with cost-adjusted total revenues per pupil in 18 states. With the addition of state revenues, there was a negative relationship between percent minority and state and local revenues per pupil in 12 states, but in 6 states the relationship was positive. With the addition of federal revenues, there was a negative relationship between percent minority enrollment and total revenues per pupil in only 6 states and a positive relationship in 18 states.

School district poverty was strongly associated with differences in revenues across the states (table 7-10). In unadjusted dollars, the percent of children in poverty in a school district showed a negative relationship with local revenues per pupil in 35 states, a positive relationship with state revenues per pupil in 36 states and a positive relationship with federal revenues per pupil in 38 states. With the addition of state and federal revenues, the negative relationship between district poverty and local revenues per pupil was reversed. There was a negative relationship between the percent of children in poverty and state and local revenues per pupil in only nine states and a negative relationship with total revenues per pupil in only five states. On the other hand, the percent of children in poverty in a district was positively related to state and local revenues per pupil in 5 states and to total revenues per pupil in 17 states.

Table 7-10. Number of states by the strength of the correlation between percent poverty children and various per pupil revenue measures: 1997–98

Relationship	Total number of states, by per pupil revenue measure				
	Local revenues	State revenues	State and local revenues	Federal revenues	Total revenues
Unadjusted dollars					
Strong positive relationship	0	16	0	32	2
Moderate positive relationship	0	20	5	6	15
Weak positive relationship	0	0	0	0	1
Weak negative relationship	1	0	1	0	0
Moderate negative relationship	27	0	8	0	5
Strong negative relationship	8	0	1	0	0
No significant relationship	4	4	25	2	17
Cost-adjusted dollars					
Strong positive relationship	0	16	0	32	3
Moderate positive relationship	0	20	8	6	21
Weak positive relationship	0	0	0	0	0
Weak negative relationship	1	0	0	0	0
Moderate negative relationship	25	0	8	0	2
Strong negative relationship	7	0	1	0	1
No significant relationship	7	4	23	2	13

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

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Appendix A: Supplementary Tables

Table A-1. Correlations between district enrollment and revenues per pupil (unadjusted dollars), by state: 1997–98

State	Total revenue	State revenue	General assistance	Instructional revenue	Local revenue	Property tax	Student fee	Federal revenue	Title I
United States	-0.04[2]	-0.02[2]	-0.04[2]	0.04[2]	-0.03[2]	-0.04[2]	0.00	0.00	0.02[2]
Alabama	-0.09	-0.31[2]	-0.36[2]	-0.04	0.03	0.19[2]	0.02	-0.10	-0.07
Alaska	-0.28[2]	-0.23	-0.22	—	0.02	—	0.03	-0.24	-0.23
Arizona	-0.22[2]	-0.12	-0.12	-0.11	-0.10	-0.09	0.13	-0.12	-0.13
Arkansas	-0.06	-0.20[2]	-0.22[2]	-0.02	0.17[2]	0.20[2]	0.12[2]	-0.16[2]	-0.12[2]
California	-0.02	0.01	0.00	0.13[2]	-0.03	-0.03	0.01	0.00	0.06
Colorado	-0.23[2]	-0.22[2]	-0.21[2]	0.13	-0.06	-0.03	0.27[2]	0.05	0.04
Connecticut	-0.10	0.05	0.07	0.09	-0.16[2]	—	0.01	0.64[2]	0.62[2]
Delaware	0.22	-0.38	-0.56[2]	0.07	0.73[2]	0.73[2]	-0.50[2]	-0.08	-0.12
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	0.02	-0.15	-0.15	0.04	0.17	0.19	0.10	-0.13	-0.18
Georgia	0.19[2]	-0.26[2]	-0.24[2]	—	0.46[2]	0.43[2]	0.17[2]	-0.30[2]	-0.22[2]
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	-0.27[2]	-0.43[2]	-0.25[2]	-0.17	-0.05	-0.03	0.13	-0.17	-0.18
Illinois	0.03	-0.03	-0.04	0.10[2]	0.02	0.03	-0.04	0.12[2]	0.08[2]
Indiana	0.28[2]	0.02	-0.08	-0.01	0.18[2]	0.16[2]	-0.12[2]	0.33[2]	0.21[2]
Iowa	-0.10[2]	-0.04	-0.02	-0.01	-0.15[2]	-0.10	-0.08	-0.01	-0.07
Kansas	-0.15[2]	-0.24[2]	-0.31[2]	0.25[2]	0.00	-0.01	0.09	0.10	-0.03
Kentucky	0.02	-0.26[2]	-0.27[2]	-0.01	0.26[2]	0.22[2]	-0.04	-0.08	-0.10
Louisiana	0.00	-0.37[2]	-0.36[2]	0.05	0.19	0.02	0.18	-0.24[2]	-0.21
Maine	-0.40[2]	-0.19[2]	-0.15[2]	—	-0.26[2]	0.10	0.01	-0.13	-0.23[2]
Maryland	0.32	-0.02	-0.12	0.29	0.22	—	-0.05	-0.12	-0.03
Massachusetts	0.04	0.23[2]	0.26[2]	0.03	-0.14[2]	—	0.01	0.45[2]	0.54[2]
Michigan	0.15[2]	0.10[2]	0.02	0.24[2]	0.06	0.04	0.09[2]	0.02	0.10[2]
Minnesota	0.00	-0.10	-0.15[2]	0.10	0.07	0.15[2]	0.18[2]	-0.04	-0.13[2]
Mississippi	-0.05	-0.36[2]	-0.33[2]	-0.31[2]	0.26[2]	0.44[2]	0.21[2]	-0.32[2]	-0.26[2]
Missouri	0.04	-0.17[2]	-0.25[2]	0.03	0.20[2]	0.24[2]	0.16[2]	-0.08	-0.13[2]
Montana	-0.16[2]	-0.15[2]	-0.11[2]	-0.05	-0.14[2]	-0.12[2]	0.07	-0.02	-0.03
Nebraska	-0.06	0.01	0.06	-0.01	-0.09[2]	-0.10[2]	0.12[2]	0.08[2]	0.10[2]
Nevada	-0.26	-0.39	-0.39	-0.22	-0.01	-0.10	-0.15	-0.19	-0.05
New Hampshire	-0.33[2]	-0.08	-0.06	0.07	-0.31[2]	-0.44[2]	0.14	0.10	0.08
New Jersey	-0.07	0.24[2]	0.21[2]	0.32[2]	-0.24[2]	-0.28[2]	-0.09[2]	0.11[2]	0.28[2]
New Mexico	-0.25[2]	-0.24[2]	-0.27[2]	-0.08	-0.06	-0.01	0.21	-0.09	-0.07
New York	-0.03	-0.02	-0.02	—	-0.02	-0.05	-0.06	0.09[2]	0.13[2]
North Carolina	-0.25[2]	-0.39[2]	-0.41[2]	-0.45[2]	0.18	—	0.01	-0.31[2]	-0.25[2]
North Dakota	-0.11	-0.10	-0.06	0.17[2]	-0.10	-0.09	0.17[2]	-0.04	-0.11
Ohio	0.12[2]	-0.01	-0.06	0.17[2]	0.08[2]	0.12[2]	-0.03	0.30[2]	0.23[2]
Oklahoma	-0.13[2]	-0.21[2]	-0.17[2]	-0.09[2]	-0.01	0.00	0.16[2]	-0.13[2]	-0.13[2]
Oregon	-0.18[2]	-0.19[2]	-0.19[2]	-0.02	-0.06	0.03	0.09	-0.03	-0.03
Pennsylvania	0.02	-0.08	-0.05	0.00	0.05	0.04	-0.08	0.11[2]	0.07
Rhode Island	-0.17	0.36[2]	0.38[2]	—	-0.37[2]	—	-0.40[2]	0.55[2]	0.65[2]
South Carolina	-0.08	-0.32[2]	-0.12	-0.42[2]	0.17	0.12	0.19	-0.37[2]	-0.30[2]
South Dakota	-0.15[2]	-0.15[2]	-0.21[2]	0.29[2]	-0.06	-0.04	0.00	-0.06	-0.12
Tennessee	0.11	-0.40[2]	-0.40[2]	-0.03	0.36[2]	—	-0.11	-0.14	-0.06
Texas	-0.13[2]	-0.19[2]	-0.17[2]	—	-0.03	-0.03	0.02	-0.02	0.00
Utah	-0.40[2]	-0.29	-0.18	-0.37[2]	-0.24	-0.22	0.23	-0.24	-0.24
Vermont	-0.36[2]	-0.19[2]	-0.21[2]	-0.19[2]	-0.28[2]	-0.37[2]	0.19[2]	0.21[2]	0.29[2]
Virginia	0.09	-0.25[2]	-0.22[2]	-0.28[2]	0.17	—	0.03	-0.10	-0.18[2]
Washington	-0.21[2]	-0.25[2]	-0.21[2]	-0.12[2]	0.22[2]	0.31[2]	0.17[2]	-0.14[2]	-0.11
West Virginia	-0.10	-0.28[2]	-0.24	—	0.38[2]	0.36[2]	0.43[2]	-0.21	-0.09
Wisconsin	-0.05	0.00	-0.02	0.10[2]	-0.05	-0.03	-0.08	0.04	0.12[2]
Wyoming	-0.43[2]	-0.19	-0.21	0.14	-0.18	-0.18	0.00	-0.15	-0.07

—Not available.

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-2. Correlations between district enrollment and revenues per pupil (cost-adjusted dollars), by state: 1997–98

State	Total revenue	State revenue	General assistance	Instructional revenue	Local revenue	Property tax	Student fee	Federal revenue	Title I
United States	-0.08[2]	-0.05[2]	-0.06[2]	0.03[2]	-0.05[2]	-0.06[2]	-0.02[2]	-0.01	0.00
Alabama	-0.24[2]	-0.41[2]	-0.49[2]	-0.08	0.01	0.18[2]	-0.02	-0.13	-0.10
Alaska	-0.27[2]	-0.22	-0.22	—	0.00	—	0.02	-0.24	-0.24
Arizona	-0.26[2]	-0.16[2]	-0.16[2]	-0.12	-0.13	-0.11	0.10	-0.13	-0.15[2]
Arkansas	-0.21[2]	-0.30[2]	-0.33[2]	-0.04	0.10	0.14[2]	0.06	-0.18[2]	-0.15[2]
California	0.04	-0.03	-0.04	0.10[2]	-0.04	-0.04	-0.01	-0.01	0.03
Colorado	-0.30[2]	-0.26[2]	-0.25[2]	0.04	-0.12	-0.08	0.18[2]	0.00	0.01
Connecticut	-0.28[2]	-0.02	0.01	0.03	-0.24[2]	—	-0.02	0.58[2]	0.59[2]
Delaware	-0.03	-0.48	-0.67[2]	-0.02	0.68[2]	0.70[2]	-0.53[2]	-0.12	-0.19
District of Columbia	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Florida	-0.21	-0.23	-0.23	-0.07	0.13	0.15	0.04	-0.23	-0.24[2]
Georgia	-0.09	-0.37[2]	-0.45[2]	—	0.36[2]	0.32[2]	0.10	-0.32[2]	-0.25[2]
Hawaii	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Idaho	-0.32[2]	-0.46[2]	-0.30[2]	-0.18	-0.08	-0.06	0.07	-0.20[2]	-0.20[2]
Illinois	-0.01	-0.05	-0.05	0.07[2]	0.01	0.01	-0.05	0.08[2]	0.05
Indiana	0.07	-0.17[2]	-0.23[2]	-0.07	0.10	0.08	-0.21[2]	0.27[2]	0.16[2]
Iowa	-0.17[2]	-0.11[2]	-0.10	-0.02	-0.21[2]	-0.15[2]	-0.19[2]	-0.07	-0.10[2]
Kansas	-0.24[2]	-0.30[2]	-0.34[2]	0.22[2]	-0.04	-0.04	-0.04	0.06	-0.07
Kentucky	-0.13	-0.30[2]	-0.31[2]	-0.02	0.22[2]	0.19[2]	-0.08	-0.11	-0.12
Louisiana	-0.23	-0.49[2]	-0.48[2]	-0.01	0.14	-0.01	0.13	-0.32[2]	-0.28[2]
Maine	-0.45[2]	-0.25[2]	-0.20[2]	—	-0.30[2]	0.08	-0.04	-0.14[2]	-0.25[2]
Maryland	-0.07	-0.17	-0.21	0.22	0.10	—	-0.22	-0.20	-0.10
Massachusetts	-0.06	0.17[2]	0.22[2]	0.02	-0.18[2]	—	-0.02	0.40[2]	0.52[2]
Michigan	-0.01	-0.05	-0.10[2]	0.20[2]	0.02	0.01	0.06	0.00	0.06
Minnesota	-0.11[2]	-0.18[2]	-0.23[2]	0.01	0.02	0.05	0.09	-0.05	-0.16[2]
Mississippi	-0.19[2]	-0.46[2]	-0.47[2]	-0.36[2]	0.21[2]	0.41[2]	0.17[2]	-0.35[2]	-0.28[2]
Missouri	-0.16[2]	-0.26[2]	-0.30[2]	-0.05	0.05	0.11[2]	0.07	-0.15[2]	-0.18[2]
Montana	-0.20[2]	-0.20[2]	-0.17[2]	-0.06	-0.17[2]	-0.15[2]	0.04	-0.03	-0.04
Nebraska	-0.09[2]	-0.02	0.03	-0.03	-0.12[2]	-0.13[2]	0.09[2]	0.06	0.08
Nevada	-0.26	-0.38	-0.38	-0.21	-0.03	-0.10	-0.17	-0.19	-0.07
New Hampshire	-0.36[2]	-0.12	-0.09	0.06	-0.34[2]	-0.44[2]	0.09	0.04	0.04
New Jersey	-0.16[2]	0.17[2]	0.16[2]	0.26[2]	-0.29[2]	-0.31[2]	-0.11[2]	0.07	0.24[2]
New Mexico	-0.26[2]	-0.25[2]	-0.29[2]	-0.08	-0.08	-0.04	0.15	-0.10	-0.10
New York	-0.04	-0.03	-0.03	—	-0.03	-0.05	-0.07	0.06	0.09[2]
North Carolina	-0.36[2]	-0.43[2]	-0.46[2]	-0.48[2]	0.12	—	-0.04	-0.34[2]	-0.28[2]
North Dakota	-0.13[2]	-0.15[2]	-0.12	0.13	-0.11	-0.10	0.11	-0.05	-0.12
Ohio	0.03	-0.07	-0.12[2]	0.14[2]	0.05	0.09[2]	-0.07	0.25[2]	0.19[2]
Oklahoma	-0.19[2]	-0.27[2]	-0.23[2]	-0.10[2]	-0.04	-0.03	0.10[2]	-0.14[2]	-0.15[2]
Oregon	-0.21[2]	-0.21[2]	-0.20[2]	-0.03	-0.11	-0.02	0.06	-0.08	-0.05
Pennsylvania	-0.06	-0.10[2]	-0.07	-0.08	0.03	0.02	-0.12[2]	0.09[2]	0.06
Rhode Island	-0.24	0.33[2]	0.36[2]	—	-0.38[2]	—	-0.40[2]	0.52[2]	0.64[2]
South Carolina	-0.21[2]	-0.39[2]	-0.19	-0.44[2]	0.14	0.10	0.16	-0.39[2]	-0.31[2]
South Dakota	-0.20[2]	-0.20[2]	-0.25[2]	0.24[2]	-0.10	-0.08	-0.07	-0.07	-0.13
Tennessee	-0.09	-0.43[2]	-0.44[2]	-0.03	0.32[2]	—	-0.16	-0.20[2]	-0.11
Texas	-0.16[2]	-0.22[2]	-0.21[2]	—	-0.06	-0.05	-0.05	-0.04	-0.03
Utah	-0.42[2]	-0.32[2]	-0.23	-0.40[2]	-0.28	-0.26	0.13	-0.26	-0.27
Vermont	-0.41[2]	-0.22[2]	-0.23[2]	-0.23[2]	-0.32[2]	-0.40[2]	0.16[2]	0.16[2]	0.27[2]
Virginia	-0.09	-0.31[2]	-0.29[2]	-0.32[2]	0.10	—	-0.05	-0.16	-0.21[2]
Washington	-0.29[2]	-0.29[2]	-0.26[2]	-0.22[2]	0.08	0.20[2]	0.07	-0.16[2]	-0.13[2]
West Virginia	-0.20	-0.33[2]	-0.34[2]	—	0.34[2]	0.32[2]	0.41[2]	-0.26	-0.13
Wisconsin	-0.15[2]	-0.05	-0.07	0.05	-0.08	-0.06	-0.11[2]	0.02	0.07
Wyoming	-0.47[2]	-0.21	-0.23	0.09	-0.20	-0.20	-0.05	-0.16	-0.08

—Not available.

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-3. Correlation between local revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.16[2]	-0.39[2]	0.53[2]	0.35[2]
Alabama	-0.32[2]	-0.50[2]	0.64[2]	0.69[2]
Alaska	0.03	-0.35[2]	0.52[2]	0.23
Arizona	-0.26[2]	-0.28[2]	0.31[2]	0.38[2]
Arkansas	(3)	(3)	(3)	(3)
California	-0.23[2]	-0.38[2]	0.40[2]	0.41[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	-0.49[2]	-0.63[2]	0.77[2]	0.47[2]
Delaware	0.21	-0.59[2]	0.70[2]	0.76[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.19	-0.38[2]	0.48[2]	0.75[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.21[2]	-0.27[2]	0.29[2]	0.57[2]
Illinois	-0.18[2]	-0.47[2]	0.63[2]	0.69[2]
Indiana	0.02	-0.30[2]	0.43[2]	0.58[2]
Iowa	-0.10	-0.37[2]	0.36[2]	0.36[2]
Kansas	-0.15[2]	-0.26[2]	0.39[2]	0.43[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.07	-0.47[2]	0.70[2]	0.60[2]
Maine	0.14[2]	-0.18[2]	0.26[2]	0.47[2]
Maryland	-0.37	-0.65[2]	0.82[2]	0.90[2]
Massachusetts	-0.03	-0.41[2]	0.51[2]	0.67[2]
Michigan	-0.22[2]	-0.40[2]	0.53[2]	0.64[2]
Minnesota	0.19[2]	-0.05	0.29[2]	0.45[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.15[2]	-0.26[2]	0.52[2]	0.57[2]
Montana	-0.18[2]	-0.13[2]	0.09	-0.08
Nebraska	-0.35[2]	-0.09[2]	-0.04	-0.13[2]
Nevada	0.48	0.29	0.16	0.17
New Hampshire	-0.07	-0.26[2]	0.23[2]	0.43[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.32[2]	-0.58[2]	0.79[2]	0.53[2]
North Carolina	-0.19[2]	-0.49[2]	0.66[2]	0.77[2]
North Dakota	-0.40[2]	-0.22[2]	0.15[2]	-0.03
Ohio	0.03	-0.40[2]	0.58[2]	0.72[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.17[2]	-0.21[2]	0.31[2]	0.41[2]
Pennsylvania	-0.25[2]	-0.64[2]	0.79[2]	0.81[2]
Rhode Island	-0.60[2]	-0.68[2]	0.74[2]	0.69[2]
South Carolina	-0.10	-0.23[2]	0.31[2]	0.49[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.39[2]	0.01	0.29[2]	0.44[2]
Texas	-0.06	-0.38[2]	0.42[2]	0.47[2]
Utah	0.21	0.25	-0.15	0.28
Vermont	0.00	-0.25[2]	0.28[2]	0.48[2]
Virginia	-0.03	-0.42[2]	0.71[2]	0.86[2]
Washington	0.03	-0.43[2]	0.54[2]	0.73[2]
West Virginia	0.28[2]	-0.53[2]	0.61[2]	0.52[2]
Wisconsin	-0.28[2]	-0.46[2]	0.57[2]	0.69[2]
Wyoming	-0.22	-0.44[2]	0.61[2]	0.33[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-4. Correlation between local revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.20[2]	-0.38[2]	*0.45*[2]	*0.23*[2]
Alabama	-0.34[2]	-0.49[2]	0.60[2]	0.66[2]
Alaska	-0.06	-0.44[2]	0.60[2]	0.33[2]
Arizona	-0.25[2]	-0.26[2]	0.27[2]	0.35[2]
Arkansas	(3)	(3)	(3)	(3)
California	-0.26[2]	-0.34[2]	0.34[2]	0.33[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	-0.53[2]	-0.65[2]	0.76[2]	0.46[2]
Delaware	0.21	-0.56[2]	0.65[2]	0.74[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.23	-0.38[2]	0.43[2]	0.69[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.20[2]	-0.25[2]	0.26[2]	0.54[2]
Illinois	-0.24[2]	-0.49[2]	0.59[2]	0.64[2]
Indiana	-0.09	-0.33[2]	0.37[2]	0.50[2]
Iowa	-0.25[2]	-0.30[2]	0.17[2]	0.14[2]
Kansas	-0.17[2]	-0.21[2]	0.28[2]	0.31[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.12	-0.47[2]	0.67[2]	0.51[2]
Maine	0.09	-0.13	0.17[2]	0.36[2]
Maryland	-0.40	-0.67[2]	0.81[2]	0.89[2]
Massachusetts	-0.05	-0.41[2]	0.49[2]	0.64[2]
Michigan	-0.25[2]	-0.39[2]	0.47[2]	0.60[2]
Minnesota	0.13[2]	-0.04	0.20[2]	0.34[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.07	-0.23[2]	0.42[2]	0.46[2]
Montana	-0.17[2]	-0.10[2]	0.06	-0.15[2]
Nebraska	-0.41[2]	-0.04	-0.17[2]	-0.30[2]
Nevada	0.50[2]	0.33	0.10	0.10
New Hampshire	-0.15	-0.17[2]	0.10	0.28[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.40[2]	-0.62[2]	0.75[2]	0.43[2]
North Carolina	-0.21[2]	-0.46[2]	0.60[2]	0.72[2]
North Dakota	-0.37[2]	-0.14[2]	0.05	-0.17[2]
Ohio	-0.03	-0.43[2]	0.59[2]	0.71[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.13	-0.17[2]	0.25[2]	0.37[2]
Pennsylvania	-0.31[2]	-0.66[2]	0.76[2]	0.77[2]
Rhode Island	-0.60[2]	-0.68[2]	0.74[2]	0.70[2]
South Carolina	-0.07	-0.19	0.26[2]	0.45[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.36[2]	0.02	0.24[2]	0.39[2]
Texas	-0.08[2]	-0.33[2]	0.33[2]	0.38[2]
Utah	0.19	0.26	-0.17	0.24
Vermont	-0.05	-0.22[2]	0.21[2]	0.42[2]
Virginia	-0.06	-0.42[2]	0.67[2]	0.80[2]
Washington	-0.03	-0.39[2]	0.47[2]	0.65[2]
West Virginia	0.25	-0.51[2]	0.57[2]	0.48[2]
Wisconsin	-0.33[2]	-0.46[2]	0.50[2]	0.62[2]
Wyoming	-0.23	-0.42[2]	0.58[2]	0.30[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-5. Correlation between property tax revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.21[2]	-0.28[2]	0.33[2]	0.11[2]
Alabama	-0.04	-0.34[2]	0.63[2]	0.68[2]
Alaska	—	—	—	—
Arizona	-0.41[2]	-0.48[2]	0.54[2]	0.59[2]
Arkansas	(3)	(3)	(3)	(3)
California	-0.27[2]	-0.36[2]	0.36[2]	0.43[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	—	—	—	—
Delaware	0.26	-0.57[2]	0.66[2]	0.69[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.17	-0.39[2]	0.49[2]	0.76[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.21[2]	-0.28[2]	0.32[2]	0.61[2]
Illinois	-0.02	-0.35[2]	0.68[2]	0.78[2]
Indiana	0.12[2]	-0.22[2]	0.41[2]	0.56[2]
Iowa	0.01	-0.32[2]	0.38[2]	0.42[2]
Kansas	-0.13[2]	-0.24[2]	0.36[2]	0.40[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.17	-0.14	0.37[2]	0.32[2]
Maine	-0.20[2]	-0.09	-0.04	-0.05
Maryland	—	—	—	—
Massachusetts	—	—	—	—
Michigan	-0.20[2]	-0.36[2]	0.46[2]	0.59[2]
Minnesota	0.21[2]	-0.10	0.38[2]	0.58[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.20[2]	-0.25[2]	0.54[2]	0.60[2]
Montana	-0.31[2]	-0.09	0.14	-0.39[2]
Nebraska	-0.34[2]	-0.13[2]	-0.03	-0.12[2]
Nevada	0.12	0.08	0.04	-0.03
New Hampshire	-0.58[2]	-0.41[2]	0.28[2]	0.24[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.64[2]	-0.81[2]	0.77[2]	0.20[2]
North Carolina	—	—	—	—
North Dakota	-0.44[2]	-0.33[2]	0.22[2]	0.05
Ohio	0.09[2]	-0.35[2]	0.55[2]	0.70[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.20[2]	-0.21[2]	0.29[2]	0.40[2]
Pennsylvania	-0.26[2]	-0.64[2]	0.80[2]	0.84[2]
Rhode Island	—	—	—	—
South Carolina	-0.25[2]	-0.23[2]	0.28[2]	0.45[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	—	—	—	—
Texas	-0.03	-0.36[2]	0.41[2]	0.48[2]
Utah	0.22	0.27	-0.17	0.24
Vermont	0.28	-0.11	0.04	0.55[2]
Virginia	—	—	—	—
Washington	0.11	-0.38[2]	0.48[2]	0.69[2]
West Virginia	0.27[2]	-0.53[2]	0.59[2]	0.51[2]
Wisconsin	-0.30[2]	-0.49[2]	0.58[2]	0.71[2]
Wyoming	-0.22	-0.45[2]	0.58[2]	0.31[2]

—Not available.

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-6. Correlation between local property tax revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.24[2]	-0.27[2]	0.26[2]	0.03[2]
Alabama	-0.04	-0.33[2]	0.62[2]	0.68[2]
Alaska	—	—	—	—
Arizona	-0.38[2]	-0.44[2]	0.48[2]	0.53[2]
Arkansas	(3)	(3)	(3)	(3)
California	-0.30[2]	-0.32[2]	0.30[2]	0.36[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	—	—	—	—
Delaware	0.27	-0.55•	0.61[2]	0.67[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.21	-0.39•	0.45[2]	0.70[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.21[2]	-0.27[2]	0.30[2]	0.58[2]
Illinois	-0.15[2]	-0.42[2]	0.62[2]	0.65[2]
Indiana	0.02	-0.25[2]	0.37[2]	0.50[2]
Iowa	-0.15[2]	-0.26[2]	0.21[2]	0.21[2]
Kansas	-0.15[2]	-0.19[2]	0.27[2]	0.29[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.13	-0.15	0.35[2]	0.27[2]
Maine	-0.21[2]	-0.06	-0.08	-0.09
Maryland	—	—	—	—
Massachusetts	—	—	—	—
Michigan	-0.22[2]	-0.35[2]	0.40[2]	0.54[2]
Minnesota	0.14[2]	-0.09	0.29[2]	0.48[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.15[2]	-0.23[2]	0.48[2]	0.54[2]
Montana	-0.29	-0.07	0.10	-0.44[2]
Nebraska	-0.41[2]	-0.07	-0.16[2]	-0.31[2]
Nevada	0.13	0.10	0.00	-0.07
New Hampshire	-0.59[2]	-0.36[2]	0.21	0.19
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.69[2]	-0.83[2]	0.73[2]	0.13[2]
North Carolina	—	—	—	—
North Dakota	-0.42[2]	-0.26[2]	0.12	-0.10
Ohio	0.04	-0.37[2]	0.56[2]	0.70[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.17[2]	-0.18[2]	0.23[2]	0.35[2]
Pennsylvania	-0.31[2]	-0.66[2]	0.78[2]	0.81[2]
Rhode Island	—	—	—	—
South Carolina	-0.23[2]	-0.20	0.24[2]	0.42[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	—	—	—	—
Texas	-0.05	-0.32[2]	0.34[2]	0.38[2]
Utah	0.19	0.28	-0.19	0.21
Vermont	0.23	-0.11	0.00	0.52[2]
Virginia	—	—	—	—
Washington	0.06	-0.35[2]	0.43[2]	0.62[2]
West Virginia	0.24	-0.50[2]	0.56[2]	0.47[2]
Wisconsin	-0.35[2]	-0.49[2]	0.52[2]	0.64[2]
Wyoming	-0.23	-0.44[2]	0.56[2]	0.29

—Not available.

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-7. Correlation between student fees per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.46[2]	-0.52[2]	0.32[2]	-0.05[2]
Alabama	-0.72[2]	-0.79[2]	0.62[2]	0.48[2]
Alaska	-0.29[2]	-0.24	0.43[2]	0.11
Arizona	-0.42[2]	-0.52[2]	0.55[2]	0.54[2]
Arkansas	(3)	(3)	(3)	(3)
California	-0.39[2]	-0.50[2]	0.41[2]	0.22[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	-0.43[2]	-0.41[2]	0.45[2]	0.11
Delaware	-0.35	0.17	-0.17	-0.13
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.08	-0.38[2]	0.35[2]	0.18
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.27[2]	-0.25[2]	0.33[2]	0.37[2]
Illinois	-0.57[2]	-0.62[2]	0.49[2]	0.37[2]
Indiana	-0.55[2]	-0.66[2]	0.53[2]	0.51[2]
Iowa	-0.30[2]	-0.49[2]	0.40[2]	0.32[2]
Kansas	-0.51[2]	-0.68[2]	0.63[2]	0.59[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.39[2]	-0.57[2]	0.56[2]	0.32[2]
Maine	-0.03	-0.02	-0.01	0.03
Maryland	-0.24	-0.80[2]	0.66[2]	0.62[2]
Massachusetts	0.04	-0.02	0.08	0.24[2]
Michigan	-0.57[2]	-0.66[2]	0.66[2]	0.60[2]
Minnesota	-0.31[2]	-0.56[2]	0.59[2]	0.56[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	-0.26[2]	-0.43[2]	0.46[2]	0.44[2]
Montana	-0.13[2]	-0.16[2]	0.13[2]	0.09
Nebraska	-0.48[2]	-0.50[2]	0.45[2]	0.30[2]
Nevada	-0.58[2]	-0.48	0.11	0.14
New Hampshire	-0.17[2]	-0.09	0.06	0.14
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.76[2]	-0.78[2]	0.56[2]	-0.07
North Carolina	-0.44[2]	-0.51[2]	0.38[2]	0.28[2]
North Dakota	-0.38[2]	-0.38[2]	0.33[2]	0.45[2]
Ohio	-0.35[2]	-0.56[2]	0.54[2]	0.51[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	-0.16[2]	-0.39[2]	0.40[2]	0.39[2]
Pennsylvania	-0.66[2]	-0.79[2]	0.59[2]	0.56[2]
Rhode Island	-0.79[2]	-0.78[2]	0.74[2]	0.54[2]
South Carolina	-0.67[2]	-0.71[2]	0.64[2]	0.34[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.37[2]	-0.27[2]	0.12	0.19[2]
Texas	-0.49[2]	-0.77[2]	0.69[2]	0.50[2]
Utah	-0.37[2]	-0.59[2]	0.70[2]	0.52[2]
Vermont	-0.05	-0.08	0.03	0.02
Virginia	-0.39[2]	-0.53[2]	0.62[2]	0.63[2]
Washington	-0.39[2]	-0.59[2]	0.71[2]	0.63[2]
West Virginia	0.12	-0.45[2]	0.54[2]	0.52[2]
Wisconsin	-0.61[2]	-0.59[2]	0.32[2]	0.24[2]
Wyoming	-0.42[2]	-0.54[2]	0.54[2]	0.44[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-8. Correlation between student fees per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.48[2]	-0.47[2]	0.21[2]	-0.16[2]
Alabama	-0.74[2]	-0.77[2]	0.57[2]	0.44[2]
Alaska	-0.29[2]	-0.26	0.44[2]	0.14
Arizona	-0.41[2]	-0.50[2]	0.52[2]	0.52[2]
Arkansas	(3)	(3)	(3)	(3)
California	-0.41[2]	-0.47[2]	0.36[2]	0.16[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	-0.44[2]	-0.41[2]	0.43[2]	0.10
Delaware	-0.34	0.25	-0.27	-0.22
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.12	-0.33[2]	0.25[2]	0.03
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.26[2]	-0.23[2]	0.28[2]	0.32[2]
Illinois	-0.61[2]	-0.60[2]	0.41[2]	0.27[2]
Indiana	-0.60[2]	-0.64[2]	0.45[2]	0.41[2]
Iowa	-0.42[2]	-0.44[2]	0.25[2]	0.15[2]
Kansas	-0.61[2]	-0.62[2]	0.46[2]	0.40[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.42[2]	-0.56[2]	0.52[2]	0.26[2]
Maine	-0.06	0.02	-0.08	-0.05
Maryland	-0.26	-0.78[2]	0.59[2]	0.54[2]
Massachusetts	0.03	-0.02	0.05	0.20[2]
Michigan	-0.60[2]	-0.66[2]	0.60[2]	0.55[2]
Minnesota	-0.37[2]	-0.54[2]	0.50[2]	0.44[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	-0.31[2]	-0.41[2]	0.37[2]	0.34[2]
Montana	-0.13[2]	-0.15[2]	0.12[2]	0.06
Nebraska	-0.55[2]	-0.42[2]	0.28[2]	0.10[2]
Nevada	-0.49[2]	-0.38	0.01	0.06
New Hampshire	-0.22[2]	-0.03	-0.03	0.05
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.79[2]	-0.77[2]	0.48[2]	-0.17[2]
North Carolina	-0.46[2]	-0.46[2]	0.29[2]	0.18[2]
North Dakota	-0.40[2]	-0.35[2]	0.26[2]	0.32[2]
Ohio	-0.42[2]	-0.57[2]	0.51[2]	0.46[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	-0.17[2]	-0.38[2]	0.39[2]	0.38[2]
Pennsylvania	-0.71[2]	-0.75[2]	0.47[2]	0.43[2]
Rhode Island	-0.78[2]	-0.78[2]	0.74[2]	0.56[2]
South Carolina	-0.67[2]	-0.69[2]	0.61[2]	0.30[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.40[2]	-0.24[2]	0.05	0.10
Texas	-0.52[2]	-0.73[2]	0.60[2]	0.42[2]
Utah	-0.40[2]	-0.56[2]	0.65[2]	0.46[2]
Vermont	-0.07	-0.08	0.02	0.01
Virginia	-0.46[2]	-0.45[2]	0.44[2]	0.42[2]
Washington	-0.45[2]	-0.55[2]	0.63[2]	0.53[2]
West Virginia	0.09	-0.44[2]	0.52[2]	0.49[2]
Wisconsin	-0.63[2]	-0.56[2]	0.22[2]	0.14[2]
Wyoming	-0.43[2]	-0.51[2]	0.49[2]	0.40[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-9. Correlation between percent local revenues and selected school district fiscal and demographic characteristics, by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.24[2]	-0.48[2]	0.52[2]	0.27[2]
Alabama	-0.39[2]	-0.59[2]	0.68[2]	0.71[2]
Alaska	-0.56[2]	-0.77[2]	0.84[2]	0.71[2]
Arizona	-0.48[2]	-0.50[2]	0.49[2]	0.58[2]
Arkansas	([3])	([3])	([3])	([3])
California	-0.34[2]	-0.50[2]	0.51[2]	0.45[2]
Colorado	([3])	([3])	([3])	([3])
Connecticut	-0.61[2]	-0.76[2]	0.80[2]	0.55[2]
Delaware	0.15	-0.58[2]	0.69[2]	0.76[2]
District of Columbia	([1])	([1])	([1])	([1])
Florida	-0.26[2]	-0.49[2]	0.51[2]	0.71[2]
Georgia	([3])	([3])	([3])	([3])
Hawaii	([1])	([1])	([1])	([1])
Idaho	-0.27[2]	-0.32[2]	0.37[2]	0.64[2]
Illinois	-0.36[2]	-0.69[2]	0.76[2]	0.72[2]
Indiana	-0.22[2]	-0.54[2]	0.57[2]	0.67[2]
Iowa	-0.23[2]	-0.52[2]	0.46[2]	0.48[2]
Kansas	-0.18[2]	-0.41[2]	0.56[2]	0.63[2]
Kentucky	([3])	([3])	([3])	([3])
Louisiana	-0.05	-0.51[2]	0.74[2]	0.68[2]
Maine	0.14[2]	-0.25[2]	0.36[2]	0.59[2]
Maryland	-0.53[2]	-0.83[2]	0.87[2]	0.87[2]
Massachusetts	-0.32[2]	-0.66[2]	0.67[2]	0.67[2]
Michigan	-0.37[2]	-0.49[2]	0.48[2]	0.59[2]
Minnesota	0.03	-0.28[2]	0.50[2]	0.65[2]
Mississippi	([3])	([3])	([3])	([3])
Missouri	-0.24[2]	-0.60[2]	0.70[2]	0.69[2]
Montana	-0.61[2]	-0.50[2]	0.36[2]	0.28[2]
Nebraska	-0.43[2]	-0.19[2]	0.04	-0.03
Nevada	0.57[2]	0.32	0.32	0.55[2]
New Hampshire	0.10	-0.47[2]	0.52[2]	0.66[2]
New Jersey	([3])	([3])	([3])	([3])
New Mexico	([3])	([3])	([3])	([3])
New York	-0.27[2]	-0.59[2]	0.78[2]	0.55[2]
North Carolina	-0.25[2]	-0.61[2]	0.78[2]	0.83[2]
North Dakota	-0.76[2]	-0.59[2]	0.44[2]	0.20[2]
Ohio	-0.24[2]	-0.65[2]	0.72[2]	0.76[2]
Oklahoma	([3])	([3])	([3])	([3])
Oregon	0.02	-0.36[2]	0.41[2]	0.52[2]
Pennsylvania	-0.35[2]	-0.78[2]	0.82[2]	0.81[2]
Rhode Island	-0.69[2]	-0.79[2]	0.86[2]	0.72[2]
South Carolina	-0.28[2]	-0.38[2]	0.43[2]	0.58[2]
South Dakota	([3])	([3])	([3])	([3])
Tennessee	0.33[2]	-0.15	0.45[2]	0.56[2]
Texas	0.00	-0.56[2]	0.61[2]	0.65[2]
Utah	0.11	0.13	-0.04	0.37[2]
Vermont	0.04	-0.31[2]	0.32[2]	0.52[2]
Virginia	-0.18[2]	-0.62[2]	0.82[2]	0.87[2]
Washington	-0.12[2]	-0.56[2]	0.63[2]	0.75[2]
West Virginia	0.31[2]	-0.61[2]	0.70[2]	0.58[2]
Wisconsin	-0.40[2]	-0.58[2]	0.63[2]	0.72[2]
Wyoming	-0.26	-0.52[2]	0.71[2]	0.41[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-10. Correlation between state revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.20[2]	0.32[2]	-0.31[2]	-0.12[2]
Alabama	0.12	0.36[2]	-0.52[2]	-0.56[2]
Alaska	0.67[2]	0.66[2]	-0.58[2]	-0.70[2]
Arizona	0.35[2]	0.38[2]	-0.35[2]	-0.43[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.41[2]	0.47[2]	-0.45[2]	-0.33[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.63[2]	0.79[2]	-0.80[2]	-0.54[2]
Delaware	0.01	0.27	-0.42	-0.52[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.32[2]	0.51[2]	-0.45[2]	-0.51[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.20[2]	0.29[2]	-0.36[2]	-0.63[2]
Illinois	0.37[2]	0.69[2]	-0.74[2]	-0.69[2]
Indiana	0.51[2]	0.67[2]	-0.53[2]	-0.57[2]
Iowa	0.27[2]	0.46[2]	-0.37[2]	-0.41[2]
Kansas	-0.03	0.35[2]	-0.50[2]	-0.55[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.24	0.20	-0.43[2]	-0.57[2]
Maine	-0.13[2]	0.20[2]	-0.29[2]	-0.51[2]
Maryland	0.61[2]	0.85[2]	-0.81[2]	-0.80[2]
Massachusetts	0.49[2]	0.78[2]	-0.69[2]	-0.61[2]
Michigan	0.48[2]	0.30[2]	0.09[2]	0.05
Minnesota	0.30[2]	0.50[2]	-0.53[2]	-0.58[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.63[2]	0.67[2]	-0.51[2]	-0.45[2]
Montana	0.15[2]	0.19[2]	-0.21[2]	-0.45[2]
Nebraska	0.21[2]	0.17[2]	-0.09[2]	-0.13[2]
Nevada	-0.51[2]	-0.24	-0.39	-0.61[2]
New Hampshire	-0.28[2]	0.34[2]	-0.43[2]	-0.57[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.03	0.28[2]	-0.58[2]	-0.64[2]
North Carolina	0.10	0.47[2]	-0.58[2]	-0.47[2]
North Dakota	0.21[2]	0.24[2]	-0.25[2]	-0.37[2]
Ohio	0.46[2]	0.69[2]	-0.63[2]	-0.62[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.21[2]	0.35[2]	-0.34[2]	-0.46[2]
Pennsylvania	0.27[2]	0.74[2]	-0.79[2]	-0.78[2]
Rhode Island	0.70[2]	0.78[2]	-0.85[2]	-0.71[2]
South Carolina	0.33[2]	0.27[2]	-0.27[2]	-0.49[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.31[2]	0.19[2]	-0.43[2]	-0.51[2]
Texas	-0.11[2]	0.50[2]	-0.55[2]	-0.61[2]
Utah	0.15	0.28	-0.32[2]	-0.53[2]
Vermont	-0.06	0.22[2]	-0.23[2]	-0.44[2]
Virginia	0.19[2]	0.64[2]	-0.82[2]	-0.87[2]
Washington	0.15[2]	0.39[2]	-0.35[2]	-0.33[2]
West Virginia	-0.24	0.41[2]	-0.50[2]	-0.41[2]
Wisconsin	0.41[2]	0.58[2]	-0.61[2]	-0.70[2]
Wyoming	0.26	0.57[2]	-0.73[2]	-0.44[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-11. Correlation between state revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.10[2]	0.35[2]	-0.44[2]	-0.30[2]
Alabama	0.08	0.41[2]	-0.61[2]	-0.63[2]
Alaska	0.63[2]	0.62[2]	-0.58[2]	-0.64[2]
Arizona	0.37[2]	0.41[2]	-0.40[2]	-0.46[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.33[2]	0.51[2]	-0.51[2]	-0.44[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.58[2]	0.74[2]	-0.78[2]	-0.54[2]
Delaware	-0.02	0.38	-0.58[2]	-0.60[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.23	0.52[2]	-0.53[2]	-0.64[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.19[2]	0.30[2]	-0.42[2]	-0.66[2]
Illinois	0.19[2]	0.59[2]	-0.73[2]	-0.72[2]
Indiana	0.26[2]	0.60[2]	-0.64[2]	-0.72[2]
Iowa	-0.01	0.46[2]	-0.54[2]	-0.63[2]
Kansas	-0.15[2]	0.35[2]	-0.56[2]	-0.63[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.31[2]	0.19	-0.48[2]	-0.72[2]
Maine	-0.16[2]	0.25[2]	-0.36[2]	-0.58[2]
Maryland	0.54[2]	0.82[2]	-0.84[2]	-0.83[2]
Massachusetts	0.46[2]	0.76[2]	-0.69[2]	-0.63[2]
Michigan	0.41[2]	0.38[2]	-0.15[2]	-0.17[2]
Minnesota	0.11[2]	0.45[2]	-0.65[2]	-0.74[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.48[2]	0.69[2]	-0.62[2]	-0.58[2]
Montana	0.13[2]	0.19[2]	-0.21[2]	-0.51[2]
Nebraska	0.07	0.22[2]	-0.24[2]	-0.33[2]
Nevada	-0.47	-0.20	-0.43	-0.63[2]
New Hampshire	-0.29[2]	0.36[2]	-0.45[2]	-0.60[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.16[2]	0.20[2]	-0.58[2]	-0.72[2]
North Carolina	0.12	0.53[2]	-0.69[2]	-0.59[2]
North Dakota	0.19[2]	0.30[2]	-0.35[2]	-0.54[2]
Ohio	0.32[2]	0.64[2]	-0.63[2]	-0.64[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.14	0.38[2]	-0.40[2]	-0.50[2]
Pennsylvania	0.17[2]	0.68[2]	-0.79[2]	-0.78[2]
Rhode Island	0.67[2]	0.75[2]	-0.83[2]	-0.70[2]
South Carolina	0.41[2]	0.40[2]	-0.43[2]	-0.61[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.35[2]	0.21[2]	-0.50[2]	-0.59[2]
Texas	-0.15[2]	0.48[2]	-0.57[2]	-0.63[2]
Utah	0.11	0.30	-0.37[2]	-0.54[2]
Vermont	-0.07	0.23[2]	-0.25[2]	-0.45[2]
Virginia	0.11	0.62[2]	-0.84[2]	-0.89[2]
Washington	0.02	0.47[2]	-0.51[2]	-0.53[2]
West Virginia	-0.28[2]	0.44[2]	-0.54[2]	-0.46[2]
Wisconsin	0.24[2]	0.50[2]	-0.65[2]	-0.76[2]
Wyoming	0.25	0.58[2]	-0.74[2]	-0.45[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

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Table A-12. Correlation between General Formula Assistance revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.07[2]	0.29[2]	-0.34[2]	-0.28[2]
Alabama	0.03	0.22[2]	-0.38[2]	-0.38[2]
Alaska	0.70[2]	0.76[2]	-0.70[2]	-0.74[2]
Arizona	0.33[2]	0.36[2]	-0.33[2]	-0.42[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.23[2]	0.38[2]	-0.42[2]	-0.49[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.60[2]	0.76[2]	-0.77[2]	-0.54[2]
Delaware	0.06	0.49	-0.68[2]	-0.67[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.24[2]	0.42[2]	-0.44[2]	-0.65[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.23[2]	0.28[2]	-0.31[2]	-0.65[2]
Illinois	0.21[2]	0.58[2]	-0.70[2]	-0.71[2]
Indiana	0.48[2]	0.68[2]	-0.56[2]	-0.64[2]
Iowa	0.28[2]	0.44[2]	-0.35[2]	-0.39[2]
Kansas	-0.19[2]	0.24[2]	-0.43[2]	-0.55[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.24	0.20	-0.44[2]	-0.57[2]
Maine	-0.12	0.24[2]	-0.31[2]	-0.53[2]
Maryland	0.38	0.62[2]	-0.76[2]	-0.84[2]
Massachusetts	0.43[2]	0.74[2]	-0.69[2]	-0.65[2]
Michigan	0.26[2]	0.10[2]	0.18[2]	0.11[2]
Minnesota	-0.03	0.19[2]	-0.35[2]	-0.51[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.30[2]	0.50[2]	-0.55[2]	-0.59[2]
Montana	0.23[2]	0.24[2]	-0.27[2]	-0.32[2]
Nebraska	0.18[2]	0.12[2]	-0.04	-0.11[2]
Nevada	-0.51[2]	-0.23	-0.39	-0.61[2]
New Hampshire	-0.24[2]	0.29[2]	-0.37[2]	-0.55[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.04	0.26[2]	-0.53[2]	-0.62[2]
North Carolina	0.04	0.48[2]	-0.65[2]	-0.54[2]
North Dakota	0.41[2]	0.42[2]	-0.33[2]	-0.32[2]
Ohio	0.35[2]	0.52[2]	-0.53[2]	-0.56[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.07	0.20[2]	-0.20[2]	-0.33[2]
Pennsylvania	0.40[2]	0.81[2]	-0.81[2]	-0.81[2]
Rhode Island	0.69[2]	0.77[2]	-0.85[2]	-0.72[2]
South Carolina	-0.03	-0.04	-0.03	-0.38[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.29[2]	0.17[2]	-0.40[2]	-0.48[2]
Texas	-0.12[2]	0.49[2]	-0.54[2]	-0.61[2]
Utah	-0.17	-0.15	0.07	-0.31[2]
Vermont	-0.09	0.23[2]	-0.25[2]	-0.48[2]
Virginia	0.12	0.55[2]	-0.78[2]	-0.87[2]
Washington	-0.06	-0.01	0.00	-0.02
West Virginia	-0.19	0.70[2]	-0.73[2]	-0.72[2]
Wisconsin	0.24[2]	0.47[2]	-0.61[2]	-0.74[2]
Wyoming	0.34[2]	0.64[2]	-0.77[2]	-0.47[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-13. Correlation between General Formula Assistance revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.00	0.31[2]	-0.43[2]	-0.40[2]
Alabama	0.02	0.35[2]	-0.57[2]	-0.56[2]
Alaska	0.66[2]	0.72[2]	-0.69[2]	-0.68[2]
Arizona	0.35[2]	0.40[2]	-0.38[2]	-0.44[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.17[2]	0.41[2]	-0.47[2]	-0.56[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.56[2]	0.72[2]	-0.76[2]	-0.54[2]
Delaware	0.00	0.59[2]	-0.82[2]	-0.73[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.18	0.44[2]	-0.50[2]	-0.74[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.22[2]	0.30[2]	-0.37[2]	-0.68[2]
Illinois	0.08[2]	0.50[2]	-0.68[2]	-0.71[2]
Indiana	0.25[2]	0.59[2]	-0.63[2]	-0.73[2]
Iowa	0.00	0.45[2]	-0.53[2]	-0.62[2]
Kansas	-0.27[2]	0.25[2]	-0.48[2]	-0.60[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.31[2]	0.19	-0.48[2]	-0.71[2]
Maine	-0.15[2]	0.27[2]	-0.35[2]	-0.58[2]
Maryland	0.31	0.59[2]	-0.77[2]	-0.84[2]
Massachusetts	0.41[2]	0.73[2]	-0.69[2]	-0.66[2]
Michigan	0.13[2]	0.15[2]	-0.06	-0.12[2]
Minnesota	-0.14[2]	0.19[2]	-0.47[2]	-0.65[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.15[2]	0.50[2]	-0.61[2]	-0.67[2]
Montana	0.20[2]	0.24[2]	-0.27[2]	-0.42[2]
Nebraska	0.08[2]	0.16[2]	-0.17[2]	-0.26[2]
Nevada	-0.48	-0.20	-0.42	-0.63[2]
New Hampshire	-0.24[2]	0.31[2]	-0.38[2]	-0.56[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.16[2]	0.19[2]	-0.54[2]	-0.70[2]
North Carolina	0.08	0.56[2]	-0.77[2]	-0.68[2]
North Dakota	0.33[2]	0.47[2]	-0.47[2]	-0.60[2]
Ohio	0.20[2]	0.47[2]	-0.54[2]	-0.59[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.03	0.26[2]	-0.28[2]	-0.39[2]
Pennsylvania	0.32[2]	0.76[2]	-0.81[2]	-0.81[2]
Rhode Island	0.66[2]	0.75[2]	-0.83[2]	-0.71[2]
South Carolina	0.05	0.07	-0.15	-0.48[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.34[2]	0.19[2]	-0.48[2]	-0.57[2]
Texas	-0.15[2]	0.48[2]	-0.56[2]	-0.62[2]
Utah	-0.16	-0.06	-0.04	-0.37[2]
Vermont	-0.09	0.23[2]	-0.26[2]	-0.49[2]
Virginia	0.05	0.54[2]	-0.80[2]	-0.89[2]
Washington	-0.14[2]	0.24[2]	-0.33[2]	-0.39[2]
West Virginia	-0.26	0.72[2]	-0.77[2]	-0.76[2]
Wisconsin	0.10[2]	0.39[2]	-0.63[2]	-0.77[2]
Wyoming	0.32[2]	0.65[2]	-0.78[2]	-0.48[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-14. Correlation between state instructional program revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.20[2]	0.09[2]	-0.09[2]	0.00
Alabama	0.76[2]	0.81[2]	-0.63[2]	-0.54[2]
Alaska	—	—	—	—
Arizona	0.27[2]	0.36[2]	-0.42[2]	-0.35[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.28[2]	0.16[2]	-0.03	0.15[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.68[2]	0.82[2]	-0.82[2]	-0.51[2]
Delaware	0.03	-0.35	0.35	0.15
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.42[2]	0.47[2]	-0.43[2]	-0.45[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.13	0.24[2]	-0.18	-0.24[2]
Illinois	0.86[2]	0.72[2]	-0.30[2]	0.08
Indiana	0.12[2]	0.31[2]	-0.35[2]	-0.32[2]
Iowa	0.25[2]	0.32[2]	-0.19[2]	-0.13[2]
Kansas	0.35[2]	0.19[2]	-0.08	0.07
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.69[2]	0.50[2]	-0.29[2]	0.21
Maine	—	—	—	—
Maryland	0.75[2]	0.95[2]	-0.71[2]	-0.63[2]
Massachusetts	0.02	0.05	-0.04	-0.05
Michigan	0.67[2]	0.64[2]	-0.40[2]	-0.37[2]
Minnesota	0.69[2]	0.69[2]	-0.41[2]	-0.22[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.02	0.16[2]	-0.30[2]	-0.25[2]
Montana	-0.22	-0.20	-0.03	-0.48[2]
Nebraska	0.30[2]	0.04	0.09	0.33[2]
Nevada	-0.79[2]	-0.62[2]	-0.10	0.07
New Hampshire	-0.07	0.04	-0.02	0.04
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	—	—	—	—
North Carolina	0.06	0.46[2]	-0.62[2]	-0.53[2]
North Dakota	-0.02	-0.09	0.10	0.36[2]
Ohio	0.31[2]	0.46[2]	-0.38[2]	-0.34[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	-0.05	0.06	-0.08	-0.01
Pennsylvania	0.16[2]	0.34[2]	-0.33[2]	-0.30[2]
Rhode Island	—	—	—	—
South Carolina	0.50[2]	0.55[2]	-0.63[2]	-0.70[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.16	-0.03	-0.13	-0.14
Texas	—	—	—	—
Utah	0.44[2]	0.70[2]	-0.67[2]	-0.52[2]
Vermont	-0.20	0.35[2]	-0.47[2]	-0.53[2]
Virginia	0.35[2]	0.76[2]	-0.79[2]	-0.71[2]
Washington	0.48[2]	0.60[2]	-0.54[2]	-0.39[2]
West Virginia	—	—	—	—
Wisconsin	0.41[2]	0.34[2]	-0.07	0.04
Wyoming	0.48[2]	0.07	-0.04	-0.11

—Not available.

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-15. Correlation between state instructional program revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.18[2]	0.09[2]	-0.13[2]	-0.04[2]
Alabama	0.74[2]	0.82[2]	-0.66[2]	-0.57[2]
Alaska	—	—	—	—
Arizona	0.29[2]	0.38[2]	-0.45[2]	-0.37[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.27[2]	0.21[2]	-0.09	0.08
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.64[2]	0.80[2]	-0.81[2]	-0.52[2]
Delaware	0.01	-0.30	0.26	0.08
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.36[2]	0.50[2]	-0.52[2]	-0.58[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.12	0.24[2]	-0.19	-0.25[2]
Illinois	0.81[2]	0.73[2]	-0.38[2]	-0.02
Indiana	0.04	0.28[2]	-0.38[2]	-0.35[2]
Iowa	0.21[2]	0.31[2]	-0.19[2]	-0.15[2]
Kansas	0.30[2]	0.20[2]	-0.11	0.03
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.65[2]	0.50[2]	-0.31[2]	0.15
Maine	—	—	—	—
Maryland	0.75[2]	0.95[2]	-0.73[2]	-0.65[2]
Massachusetts	0.02	0.05	-0.05	-0.06
Michigan	0.67[2]	0.67[2]	-0.45[2]	-0.42[2]
Minnesota	0.63[2]	0.71[2]	-0.51[2]	-0.34[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	-0.05	0.17[2]	-0.35[2]	-0.32[2]
Montana	-0.22	-0.19	-0.03	-0.51[2]
Nebraska	0.17[2]	0.11	-0.10	0.09
Nevada	-0.73[2]	-0.56[2]	-0.17	0.01
New Hampshire	-0.07	0.04	-0.02	0.03
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	—	—	—	—
North Carolina	0.09	0.53[2]	-0.72[2]	-0.63[2]
North Dakota	-0.02	-0.06	0.05	0.28[2]
Ohio	0.27[2]	0.46[2]	-0.39[2]	-0.36[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	-0.05	0.05	-0.07	-0.01
Pennsylvania	0.02	0.42[2]	-0.56[2]	-0.54[2]
Rhode Island	—	—	—	—
South Carolina	0.51[2]	0.58[2]	-0.67[2]	-0.72[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.17	-0.02	-0.14	-0.15
Texas	—	—	—	—
Utah	0.39[2]	0.69[2]	-0.68[2]	-0.56[2]
Vermont	-0.24	0.34[2]	-0.51[2]	-0.58[2]
Virginia	0.28[2]	0.75[2]	-0.81[2]	-0.74[2]
Washington	0.35[2]	0.66[2]	-0.63[2]	-0.53[2]
West Virginia	—	—	—	—
Wisconsin	0.30[2]	0.32[2]	-0.19[2]	-0.11[2]
Wyoming	0.45[2]	0.11	-0.09	-0.15

—Not available.

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-16. Correlation between percent state revenues and selected school district fiscal and demographic characteristics, by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.12[2]	0.34[2]	-0.43[2]	-0.24[2]
Alabama	0.14	0.33[2]	-0.53[2]	-0.62[2]
Alaska	-0.30[2]	0.04	-0.25	-0.21
Arizona	0.04	0.13	-0.18[2]	-0.25[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.26[2]	0.39[2]	-0.42[2]	-0.44[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.55[2]	0.70[2]	-0.78[2]	-0.56[2]
Delaware	-0.28	0.52[2]	-0.67[2]	-0.74[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.20	0.41[2]	-0.46[2]	-0.69[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.12	0.23[2]	-0.26[2]	-0.56[2]
Illinois	0.17[2]	0.53[2]	-0.70[2]	-0.72[2]
Indiana	0.07	0.36[2]	-0.44[2]	-0.58[2]
Iowa	0.15[2]	0.42[2]	-0.38[2]	-0.42[2]
Kansas	0.01	0.32[2]	-0.49[2]	-0.56[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.16	0.31[2]	-0.59[2]	-0.65[2]
Maine	-0.14[2]	0.17[2]	-0.27[2]	-0.52[2]
Maryland	0.48[2]	0.76[2]	-0.83[2]	-0.86[2]
Massachusetts	0.28[2]	0.62[2]	-0.64[2]	-0.66[2]
Michigan	0.15[2]	0.25[2]	-0.29[2]	-0.43[2]
Minnesota	-0.13[2]	0.16[2]	-0.41[2]	-0.59[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.20[2]	0.53[2]	-0.64[2]	-0.67[2]
Montana	-0.37[2]	-0.25[2]	0.12[2]	0.00
Nebraska	0.18[2]	0.07	0.01	-0.02
Nevada	-0.60[2]	-0.33	-0.29	-0.53[2]
New Hampshire	-0.25[2]	0.35[2]	-0.44[2]	-0.60[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	0.09[2]	0.42[2]	-0.72[2]	-0.64[2]
North Carolina	0.06	0.44[2]	-0.69[2]	-0.78[2]
North Dakota	-0.18[2]	-0.16[2]	0.06	-0.16[2]
Ohio	0.12[2]	0.51[2]	-0.62[2]	-0.70[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	-0.12	0.19[2]	-0.26[2]	-0.41[2]
Pennsylvania	0.21[2]	0.67[2]	-0.79[2]	-0.79[2]
Rhode Island	0.61[2]	0.71[2]	-0.81[2]	-0.72[2]
South Carolina	0.03	0.12	-0.20	-0.48[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	-0.44[2]	-0.03	-0.30[2]	-0.43[2]
Texas	-0.10[2]	0.46[2]	-0.51[2]	-0.60[2]
Utah	-0.39[2]	-0.40[2]	0.26	-0.17
Vermont	-0.08	0.26[2]	-0.27[2]	-0.51[2]
Virginia	0.08	0.53[2]	-0.79[2]	-0.87[2]
Washington	-0.20[2]	0.29[2]	-0.41[2]	-0.66[2]
West Virginia	-0.36[2]	0.48[2]	-0.59[2]	-0.50[2]
Wisconsin	0.23[2]	0.43[2]	-0.57[2]	-0.71[2]
Wyoming	0.08	0.41[2]	-0.69[2]	-0.39[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-17. Correlation between state and local revenues combined per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.04[2]	-0.22[2]	0.39[2]	0.32[2]
Alabama	-0.32[2]	-0.45[2]	0.55[2]	0.59[2]
Alaska	0.57[2]	0.32[2]	-0.14	-0.43[2]
Arizona	-0.09	-0.10	0.16[2]	0.20[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.15[2]	0.02	0.04	0.17[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.09	0.09	0.20[2]	0.03
Delaware	0.26	-0.46	0.45	0.44
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.06	-0.05	0.28[2]	0.68[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.10	-0.10	0.08	0.23[2]
Illinois	-0.07[2]	-0.30[2]	0.47[2]	0.56[2]
Indiana	0.37[2]	0.10	0.16[2]	0.31[2]
Iowa	0.08	-0.07	0.12[2]	0.10
Kansas	-0.20[2]	-0.06	0.10	0.11
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.22	-0.49[2]	0.65[2]	0.45[2]
Maine	0.06	-0.06	0.08	0.16[2]
Maryland	-0.12	-0.38	0.69[2]	0.82[2]
Massachusetts	0.56[2]	0.34[2]	-0.07	0.27[2]
Michigan	0.06	-0.21[2]	0.54[2]	0.62[2]
Minnesota	0.45[2]	0.29[2]	0.00	0.16[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.60[2]	0.27[2]	0.09[2]	0.18[2]
Montana	-0.07	-0.01	-0.02	-0.25[2]
Nebraska	-0.30[2]	-0.01	-0.11[2]	-0.24[2]
Nevada	-0.11	0.02	-0.32	-0.60[2]
New Hampshire	-0.16[2]	-0.17[2]	0.12	0.28[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.44[2]	-0.59[2]	0.68[2]	0.29[2]
North Carolina	-0.11	-0.15	0.24[2]	0.12[2]
North Dakota	-0.28[2]	-0.10	0.03	-0.18[2]
Ohio	0.38[2]	0.02	0.25[2]	0.43[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.34[2]	0.02	0.10	0.12
Pennsylvania	-0.17[2]	-0.41[2]	0.60[2]	0.64[2]
Rhode Island	-0.12	-0.16	0.19	0.28
South Carolina	0.05	-0.14	0.23[2]	0.34[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.34[2]	0.15	0.10	0.26[2]
Texas	-0.19[2]	-0.08[2]	0.09[2]	0.11[2]
Utah	0.31	0.43[2]	-0.34[2]	0.00
Vermont	-0.04	-0.09	0.12	0.18[2]
Virginia	0.05	-0.28[2]	0.59[2]	0.78[2]
Washington	0.12[2]	-0.15[2]	0.27[2]	0.45[2]
West Virginia	-0.01	-0.04	0.00	0.02
Wisconsin	0.02	-0.08	0.27[2]	0.38[2]
Wyoming	0.00	0.08	-0.03	-0.07

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-18. Correlation between state and local revenues combined per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.16[2]	-0.16[2]	0.17[2]	0.03[2]
Alabama	-0.33[2]	-0.35[2]	0.38[2]	0.44[2]
Alaska	0.55[2]	0.32[2]	-0.19	-0.40[2]
Arizona	-0.03	0.00	0.03	0.09
Arkansas	(3)	(3)	(3)	(3)
California	0.05	0.16[2]	-0.16[2]	-0.09[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	-0.05	-0.01	0.16[2]	-0.02
Delaware	0.24	-0.22	0.08	0.17
District of Columbia	(1)	(1)	(1)	(1)
Florida	-0.08	0.09	-0.02	0.30[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	-0.07	-0.03	-0.05	0.06
Illinois	-0.20[2]	-0.29[2]	0.34[2]	0.41[2]
Indiana	0.09	0.04	-0.01	0.10
Iowa	-0.23[2]	0.02	-0.20[2]	-0.28[2]
Kansas	-0.30[2]	0.05	-0.14[2]	-0.17[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.37[2]	-0.45[2]	0.47[2]	0.12
Maine	-0.03	0.06	-0.10	-0.06
Maryland	-0.22	-0.42[2]	0.64[2]	0.78[2]
Massachusetts	0.51[2]	0.33[2]	-0.13[2]	0.18[2]
Michigan	-0.02	-0.20[2]	0.43[2]	0.55[2]
Minnesota	0.25[2]	0.35[2]	-0.32[2]	-0.23[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.49[2]	0.42[2]	-0.18[2]	-0.12[2]
Montana	-0.07	0.01	-0.04	-0.33[2]
Nebraska	-0.40[2]	0.07	-0.30[2]	-0.48[2]
Nevada	-0.01	0.13	-0.39	-0.62[2]
New Hampshire	-0.24[2]	-0.07	-0.03	0.12
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.63[2]	-0.64[2]	0.51[2]	-0.01
North Carolina	-0.08	0.08	-0.09	0.10
North Dakota	-0.24[2]	0.00	-0.10	-0.37[2]
Ohio	0.25[2]	0.00	0.22[2]	0.37[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.24[2]	0.13	-0.07	-0.03
Pennsylvania	-0.31[2]	-0.35[2]	0.39[2]	0.43[2]
Rhode Island	-0.26	-0.30	0.32	0.40[2]
South Carolina	0.16	0.00	0.06	0.19
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.16	0.26[2]	-0.18[2]	-0.05
Texas	-0.22[2]	0.00	-0.06	-0.06
Utah	0.24	0.44[2]	-0.39[2]	-0.11
Vermont	-0.09	-0.06	0.05	0.11
Virginia	-0.02	-0.19[2]	0.41[2]	0.58[2]
Washington	0.00	0.12[2]	-0.10	0.02
West Virginia	-0.11	0.08	-0.15	-0.13
Wisconsin	-0.23[2]	-0.11[2]	-0.03	0.02
Wyoming	-0.02	0.11	-0.08	-0.12

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-19. Correlation between federal revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.56[2]	0.66[2]	-0.46[2]	-0.15[2]
Alabama	0.71[2]	0.84[2]	-0.65[2]	-0.55[2]
Alaska	0.88[2]	0.80[2]	-0.68[2]	-0.64[2]
Arizona	0.78[2]	0.68[2]	-0.57[2]	-0.62[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.54[2]	0.68[2]	-0.58[2]	-0.24[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.92[2]	0.97[2]	-0.72[2]	-0.36[2]
Delaware	0.18	0.33	-0.34	-0.36
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.54[2]	0.78[2]	-0.40[2]	-0.15
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.63[2]	0.38[2]	-0.46[2]	-0.41[2]
Illinois	0.84[2]	0.89[2]	-0.59[2]	-0.35[2]
Indiana	0.66[2]	0.80[2]	-0.58[2]	-0.49[2]
Iowa	0.51[2]	0.73[2]	-0.58[2]	-0.52[2]
Kansas	0.37[2]	0.25[2]	-0.23[2]	-0.27[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.61[2]	0.77[2]	-0.72[2]	-0.36[2]
Maine	-0.02	0.21[2]	-0.27[2]	-0.21[2]
Maryland	0.67[2]	0.97[2]	-0.81[2]	-0.71[2]
Massachusetts	0.79[2]	0.92[2]	-0.71[2]	-0.44[2]
Michigan	0.78[2]	0.87[2]	-0.67[2]	-0.63[2]
Minnesota	0.20[2]	0.24[2]	-0.19[2]	-0.15[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.58[2]	0.67[2]	-0.55[2]	-0.41[2]
Montana	0.85[2]	0.66[2]	-0.43[2]	-0.31[2]
Nebraska	0.68[2]	0.34[2]	-0.13[2]	0.08[2]
Nevada	0.09	0.00	-0.48	-0.52[2]
New Hampshire	0.42[2]	0.53[2]	-0.47[2]	-0.38[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	0.81[2]	0.92[2]	-0.64[2]	0.04
North Carolina	0.67[2]	0.85[2]	-0.72[2]	-0.59[2]
North Dakota	0.73[2]	0.58[2]	-0.38[2]	-0.10
Ohio	0.75[2]	0.90[2]	-0.71[2]	-0.57[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.51[2]	0.74[2]	-0.64[2]	-0.54[2]
Pennsylvania	0.79[2]	0.93[2]	-0.65[2]	-0.59[2]
Rhode Island	0.93[2]	0.96[2]	-0.87[2]	-0.55[2]
South Carolina	0.87[2]	0.92[2]	-0.83[2]	-0.51[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.47[2]	0.83[2]	-0.72[2]	-0.61[2]
Texas	0.40[2]	0.70[2]	-0.66[2]	-0.52[2]
Utah	0.87[2]	0.78[2]	-0.59[2]	-0.46[2]
Vermont	0.28[2]	0.43[2]	-0.34[2]	-0.08
Virginia	0.66[2]	0.86[2]	-0.62[2]	-0.42[2]
Washington	0.62[2]	0.64[2]	-0.55[2]	-0.35[2]
West Virginia	0.03	0.75[2]	-0.74[2]	-0.56[2]
Wisconsin	0.77[2]	0.79[2]	-0.46[2]	-0.30[2]
Wyoming	0.94[2]	0.68[2]	-0.29[2]	-0.17

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

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Table A-20. Correlation between federal revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.49[2]	0.65[2]	-0.50[2]	-0.23[2]
Alabama	0.68[2]	0.83[2]	-0.67[2]	-0.57[2]
Alaska	0.85[2]	0.78[2]	-0.68[2]	-0.62[2]
Arizona	0.78[2]	0.67[2]	-0.56[2]	-0.62[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.49[2]	0.68[2]	-0.60[2]	-0.29[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.91[2]	0.97[2]	-0.73[2]	-0.37[2]
Delaware	0.17	0.35	-0.38	-0.38
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.47[2]	0.81[2]	-0.51[2]	-0.32[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.62[2]	0.38[2]	-0.47[2]	-0.43[2]
Illinois	0.79[2]	0.90[2]	-0.63[2]	-0.40[2]
Indiana	0.59[2]	0.78[2]	-0.60[2]	-0.52[2]
Iowa	0.39[2]	0.73[2]	-0.64[2]	-0.60[2]
Kansas	0.35[2]	0.27[2]	-0.27[2]	-0.30[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.49[2]	0.75[2]	-0.76[2]	-0.51[2]
Maine	-0.03	0.21[2]	-0.27[2]	-0.22[2]
Maryland	0.64[2]	0.97[2]	-0.84[2]	-0.74[2]
Massachusetts	0.77[2]	0.92[2]	-0.73[2]	-0.46[2]
Michigan	0.73[2]	0.84[2]	-0.67[2]	-0.62[2]
Minnesota	0.17[2]	0.22[2]	-0.20[2]	-0.16[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.47[2]	0.67[2]	-0.60[2]	-0.48[2]
Montana	0.84[2]	0.65[2]	-0.42[2]	-0.32[2]
Nebraska	0.65[2]	0.37[2]	-0.17[2]	0.03
Nevada	0.11	0.03	-0.49[2]	-0.53[2]
New Hampshire	0.33[2]	0.55[2]	-0.50[2]	-0.43[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	0.74[2]	0.90[2]	-0.68[2]	-0.04
North Carolina	0.65[2]	0.86[2]	-0.75[2]	-0.63[2]
North Dakota	0.70[2]	0.55[2]	-0.37[2]	-0.12
Ohio	0.70[2]	0.90[2]	-0.73[2]	-0.59[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.47[2]	0.74[2]	-0.65[2]	-0.55[2]
Pennsylvania	0.76[2]	0.93[2]	-0.67[2]	-0.61[2]
Rhode Island	0.92[2]	0.96[2]	-0.86[2]	-0.54[2]
South Carolina	0.86[2]	0.92[2]	-0.84[2]	-0.54[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.36[2]	0.80[2]	-0.76[2]	-0.67[2]
Texas	0.35[2]	0.69[2]	-0.67[2]	-0.54[2]
Utah	0.85[2]	0.78[2]	-0.60[2]	-0.48[2]
Vermont	0.25[2]	0.44[2]	-0.36[2]	-0.10
Virginia	0.60[2]	0.88[2]	-0.69[2]	-0.51[2]
Washington	0.57[2]	0.65[2]	-0.56[2]	-0.38[2]
West Virginia	-0.01	0.79[2]	-0.78[2]	-0.60[2]
Wisconsin	0.71[2]	0.75[2]	-0.47[2]	-0.31[2]
Wyoming	0.93[2]	0.68[2]	-0.29[2]	-0.17

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-21. Correlation between Title I revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.63[2]	0.85[2]	-0.57[2]	-0.18[2]
Alabama	0.77[2]	0.92[2]	-0.70[2]	-0.57[2]
Alaska	0.74[2]	0.77[2]	-0.70[2]	-0.64[2]
Arizona	0.73[2]	0.81[2]	-0.73[2]	-0.68[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.64[2]	0.75[2]	-0.61[2]	-0.25[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.91[2]	0.99[2]	-0.68[2]	-0.33[2]
Delaware	0.72[2]	0.63[2]	-0.40	-0.47
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.57[2]	0.90[2]	-0.51[2]	-0.23
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.60[2]	0.57[2]	-0.67[2]	-0.64[2]
Illinois	0.83[2]	0.97[2]	-0.65[2]	-0.41[2]
Indiana	0.76[2]	0.94[2]	-0.65[2]	-0.58[2]
Iowa	0.37[2]	0.74[2]	-0.59[2]	-0.57[2]
Kansas	0.37[2]	0.64[2]	-0.55[2]	-0.45[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.73[2]	0.92[2]	-0.78[2]	-0.34[2]
Maine	-0.02	0.54[2]	-0.58[2]	-0.50[2]
Maryland	0.63[2]	0.99[2]	-0.81[2]	-0.72[2]
Massachusetts	0.80[2]	0.95[2]	-0.73[2]	-0.46[2]
Michigan	0.88[2]	0.96[2]	-0.73[2]	-0.68[2]
Minnesota	0.65[2]	0.90[2]	-0.70[2]	-0.54[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.61[2]	0.79[2]	-0.61[2]	-0.51[2]
Montana	0.39[2]	0.52[2]	-0.36[2]	-0.23[2]
Nebraska	0.61[2]	0.62[2]	-0.45[2]	-0.30[2]
Nevada	0.76[2]	0.84[2]	-0.54[2]	-0.39
New Hampshire	0.35[2]	0.53[2]	-0.37[2]	-0.32[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	0.88[2]	0.98[2]	-0.62[2]	0.13[2]
North Carolina	0.69[2]	0.89[2]	-0.69[2]	-0.55[2]
North Dakota	0.64[2]	0.69[2]	-0.60[2]	-0.43[2]
Ohio	0.77[2]	0.96[2]	-0.75[2]	-0.60[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.55[2]	0.70[2]	-0.52[2]	-0.48[2]
Pennsylvania	0.69[2]	0.90[2]	-0.65[2]	-0.58[2]
Rhode Island	0.96[2]	0.93[2]	-0.79[2]	-0.54[2]
South Carolina	0.89[2]	0.96[2]	-0.81[2]	-0.45[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.60[2]	0.85[2]	-0.65[2]	-0.53[2]
Texas	0.42[2]	0.86[2]	-0.70[2]	-0.53[2]
Utah	0.81[2]	0.92[2]	-0.79[2]	-0.58[2]
Vermont	0.30[2]	0.37[2]	-0.18[2]	0.05
Virginia	0.58[2]	0.96[2]	-0.73[2]	-0.54[2]
Washington	0.58[2]	0.74[2]	-0.59[2]	-0.40[2]
West Virginia	0.14	0.86[2]	-0.78[2]	-0.75[2]
Wisconsin	0.91[2]	0.97[2]	-0.59[2]	-0.42[2]
Wyoming	0.68[2]	0.81[2]	-0.52[2]	-0.42[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-22. Correlation between Title I revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.58[2]	0.87[2]	-0.63[2]	-0.27[2]
Alabama	0.74[2]	0.92[2]	-0.71[2]	-0.58[2]
Alaska	0.72[2]	0.76[2]	-0.70[2]	-0.63[2]
Arizona	0.73[2]	0.80[2]	-0.73[2]	-0.68[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.60[2]	0.77[2]	-0.64[2]	-0.29[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.90[2]	0.98[2]	-0.69[2]	-0.33[2]
Delaware	0.68[2]	0.68[2]	-0.48	-0.52[2]
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.52[2]	0.92[2]	-0.58[2]	-0.36[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.58[2]	0.57[2]	-0.67[2]	-0.66[2]
Illinois	0.78[2]	0.97[2]	-0.68[2]	-0.46[2]
Indiana	0.70[2]	0.93[2]	-0.67[2]	-0.61[2]
Iowa	0.28[2]	0.73[2]	-0.62[2]	-0.62[2]
Kansas	0.30[2]	0.64[2]	-0.57[2]	-0.48[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.64[2]	0.91[2]	-0.82[2]	-0.47[2]
Maine	-0.04	0.52[2]	-0.58[2]	-0.52[2]
Maryland	0.61[2]	0.99[2]	-0.83[2]	-0.74[2]
Massachusetts	0.80[2]	0.95[2]	-0.74[2]	-0.47[2]
Michigan	0.85[2]	0.96[2]	-0.75[2]	-0.70[2]
Minnesota	0.54[2]	0.86[2]	-0.74[2]	-0.61[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.49[2]	0.79[2]	-0.66[2]	-0.57[2]
Montana	0.37[2]	0.51[2]	-0.36[2]	-0.26[2]
Nebraska	0.54[2]	0.62[2]	-0.48[2]	-0.36[2]
Nevada	0.75[2]	0.83[2]	-0.56[2]	-0.41
New Hampshire	0.28[2]	0.52[2]	-0.36[2]	-0.33[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	0.85[2]	0.98[2]	-0.66[2]	0.07
North Carolina	0.67[2]	0.90[2]	-0.72[2]	-0.58[2]
North Dakota	0.61[2]	0.68[2]	-0.60[2]	-0.46[2]
Ohio	0.72[2]	0.97[2]	-0.77[2]	-0.63[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.52[2]	0.70[2]	-0.53[2]	-0.49[2]
Pennsylvania	0.65[2]	0.90[2]	-0.67[2]	-0.60[2]
Rhode Island	0.96[2]	0.93[2]	-0.79[2]	-0.54[2]
South Carolina	0.88[2]	0.96[2]	-0.82[2]	-0.47[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.52[2]	0.86[2]	-0.70[2]	-0.59[2]
Texas	0.38[2]	0.85[2]	-0.71[2]	-0.55[2]
Utah	0.79[2]	0.92[2]	-0.80[2]	-0.60[2]
Vermont	0.29[2]	0.37[2]	-0.18[2]	0.04
Virginia	0.52[2]	0.95[2]	-0.75[2]	-0.57[2]
Washington	0.54[2]	0.75[2]	-0.61[2]	-0.42[2]
West Virginia	0.11	0.87[2]	-0.80[2]	-0.76[2]
Wisconsin	0.87[2]	0.97[2]	-0.63[2]	-0.47[2]
Wyoming	0.67[2]	0.82[2]	-0.54[2]	-0.43[2]

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-23. Correlation between percent federal revenues and selected school district fiscal and demographic characteristics, by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.58[2]	0.76[2]	-0.59[2]	-0.24[2]
Alabama	0.72[2]	0.85[2]	-0.67[2]	-0.58[2]
Alaska	0.85[2]	0.79[2]	-0.69[2]	-0.58[2]
Arizona	0.81[2]	0.72[2]	-0.64[2]	-0.69[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.52[2]	0.70[2]	-0.62[2]	-0.30[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.91[2]	0.96[2]	-0.74[2]	-0.37[2]
Delaware	0.20	0.46	-0.45	-0.46
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.51[2]	0.81[2]	-0.53[2]	-0.44[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.63[2]	0.43[2]	-0.53[2]	-0.49[2]
Illinois	0.80[2]	0.90[2]	-0.64[2]	-0.42[2]
Indiana	0.60[2]	0.80[2]	-0.62[2]	-0.55[2]
Iowa	0.49[2]	0.75[2]	-0.60[2]	-0.54[2]
Kansas	0.43[2]	0.28[2]	-0.25[2]	-0.26[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	0.56[2]	0.80[2]	-0.81[2]	-0.46[2]
Maine	-0.03	0.42[2]	-0.51[2]	-0.45[2]
Maryland	0.65[2]	0.98[2]	-0.87[2]	-0.79[2]
Massachusetts	0.63[2]	0.87[2]	-0.75[2]	-0.55[2]
Michigan	0.78[2]	0.91[2]	-0.76[2]	-0.71[2]
Minnesota	0.32[2]	0.43[2]	-0.36[2]	-0.29[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.30[2]	0.57[2]	-0.60[2]	-0.49[2]
Montana	0.89[2]	0.69[2]	-0.45[2]	-0.28[2]
Nebraska	0.71[2]	0.32[2]	-0.13[2]	0.12[2]
Nevada	0.14	0.01	-0.42	-0.40
New Hampshire	0.41[2]	0.53[2]	-0.45[2]	-0.40[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	0.85[2]	0.95[2]	-0.66[2]	0.07
North Carolina	0.68[2]	0.84[2]	-0.73[2]	-0.66[2]
North Dakota	0.92[2]	0.72[2]	-0.51[2]	-0.11
Ohio	0.63[2]	0.90[2]	-0.77[2]	-0.65[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.36[2]	0.73[2]	-0.65[2]	-0.55[2]
Pennsylvania	0.78[2]	0.92[2]	-0.66[2]	-0.61[2]
Rhode Island	0.92[2]	0.96[2]	-0.89[2]	-0.59[2]
South Carolina	0.79[2]	0.90[2]	-0.83[2]	-0.56[2]
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.33[2]	0.79[2]	-0.79[2]	-0.73[2]
Texas	0.49[2]	0.75[2]	-0.71[2]	-0.54[2]
Utah	0.84[2]	0.81[2]	-0.65[2]	-0.53[2]
Vermont	0.30[2]	0.45[2]	-0.34[2]	-0.07
Virginia	0.56[2]	0.85[2]	-0.72[2]	-0.58[2]
Washington	0.61[2]	0.70[2]	-0.62[2]	-0.44[2]
West Virginia	0.00	0.74[2]	-0.73[2]	-0.56[2]
Wisconsin	0.87[2]	0.91[2]	-0.56[2]	-0.39[2]
Wyoming	0.93[2]	0.70[2]	-0.33[2]	-0.21

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-24. Correlation between total revenues per pupil and selected school district fiscal and demographic characteristics (unadjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	0.08[2]	-0.08[2]	0.30[2]	0.29[2]
Alabama	-0.13	-0.23[2]	0.39[2]	0.48[2]
Alaska	0.80[2]	0.58[2]	-0.41[2]	-0.58[2]
Arizona	0.50[2]	0.41[2]	-0.28[2]	-0.29[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.29[2]	0.20[2]	-0.12[2]	0.10[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.33[2]	0.34[2]	0.00	-0.06
Delaware	0.31	-0.28	0.26	0.24
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.16	0.10	0.19	0.62[2]
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.07	0.00	-0.04	0.11
Illinois	0.08[2]	-0.15[2]	0.38[2]	0.52[2]
Indiana	0.49[2]	0.28[2]	0.01	0.16[2]
Iowa	0.16[2]	0.05	0.02	0.01
Kansas	-0.08	0.02	0.03	0.03
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.06	-0.31[2]	0.50[2]	0.38[2]
Maine	0.05	0.03	-0.03	0.07
Maryland	0.03	-0.18	0.54[2]	0.70[2]
Massachusetts	0.64[2]	0.45[2]	-0.17[2]	0.19[2]
Michigan	0.23[2]	-0.02	0.39[2]	0.49[2]
Minnesota	0.47[2]	0.35[2]	-0.09	0.06
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.68[2]	0.38[2]	-0.02	0.09[2]
Montana	0.41[2]	0.35[2]	-0.26[2]	-0.39[2]
Nebraska	-0.03	0.13[2]	-0.16[2]	-0.20[2]
Nevada	-0.09	0.02	-0.37	-0.64[2]
New Hampshire	-0.12	-0.12	0.07	0.25[2]
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.34[2]	-0.48[2]	0.62[2]	0.32[2]
North Carolina	0.04	0.05	0.07	0.28[2]
North Dakota	0.34[2]	0.36[2]	-0.26[2]	-0.21[2]
Ohio	0.52[2]	0.20[2]	0.09[2]	0.29[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.44[2]	0.18[2]	-0.05	0.00
Pennsylvania	0.02	-0.21[2]	0.48[2]	0.53[2]
Rhode Island	0.24	0.21	-0.15	0.06
South Carolina	0.28[2]	0.10	0.01	0.21
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.42[2]	0.34[2]	-0.08	0.09
Texas	-0.10[2]	0.07[2]	-0.05	-0.01
Utah	0.51[2]	0.58[2]	-0.45[2]	-0.14
Vermont	-0.02	-0.06	0.09	0.18[2]
Virginia	0.15	-0.16	0.51[2]	0.73[2]
Washington	0.35[2]	0.10	0.05	0.30[2]
West Virginia	0.00	0.14	-0.18	-0.11
Wisconsin	0.34[2]	0.25[2]	0.06	0.22[2]
Wyoming	0.44[2]	0.38[2]	-0.16	-0.14

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Table A-25. Correlation between total revenues per pupil and selected school district fiscal and demographic characteristics (cost-adjusted dollars), by state: 1997–98

State	Minority enrollment	School-age children in poverty	Median household income	Median value owner-occupied housing
United States	-0.04[2]	0.00	0.05[2]	-0.03[2]
Alabama	-0.12	-0.08	0.17	0.27[2]
Alaska	0.79[2]	0.60[2]	-0.46[2]	-0.57[2]
Arizona	0.51[2]	0.46[2]	-0.36[2]	-0.35[2]
Arkansas	(3)	(3)	(3)	(3)
California	0.17[2]	0.32[2]	-0.30[2]	-0.16[2]
Colorado	(3)	(3)	(3)	(3)
Connecticut	0.17[2]	0.23[2]	-0.02	-0.11
Delaware	0.27	-0.03	-0.10	-0.03
District of Columbia	(1)	(1)	(1)	(1)
Florida	0.03	0.26[2]	-0.12	0.20
Georgia	(3)	(3)	(3)	(3)
Hawaii	(1)	(1)	(1)	(1)
Idaho	0.09	0.06	-0.17	-0.05
Illinois	-0.05	-0.13[2]	0.24[2]	0.34[2]
Indiana	0.24[2]	0.24[2]	-0.17[2]	-0.05
Iowa	-0.17[2]	0.12[2]	-0.28[2]	-0.35[2]
Kansas	-0.21[2]	0.12[2]	-0.21[2]	-0.25[2]
Kentucky	(3)	(3)	(3)	(3)
Louisiana	-0.24	-0.25[2]	0.27[2]	-0.02
Maine	-0.04	0.12	-0.19[2]	-0.14[2]
Maryland	-0.07	-0.20	0.46[2]	0.64[2]
Massachusetts	0.59[2]	0.44[2]	-0.23[2]	0.10
Michigan	0.18[2]	0.03	0.24[2]	0.38[2]
Minnesota	0.29[2]	0.39[2]	-0.35[2]	-0.27[2]
Mississippi	(3)	(3)	(3)	(3)
Missouri	0.56[2]	0.53[2]	-0.30[2]	-0.22[2]
Montana	0.36[2]	0.33[2]	-0.25[2]	-0.45[2]
Nebraska	-0.21[2]	0.18[2]	-0.35[2]	-0.48[2]
Nevada	0.01	0.12	-0.43	-0.65[2]
New Hampshire	-0.21[2]	-0.02	-0.07	0.08
New Jersey	(3)	(3)	(3)	(3)
New Mexico	(3)	(3)	(3)	(3)
New York	-0.55[2]	-0.54[2]	0.43[2]	-0.02
North Carolina	0.08	0.28[2]	-0.26[2]	-0.05
North Dakota	0.31[2]	0.39[2]	-0.34[2]	-0.36[2]
Ohio	0.41[2]	0.21[2]	0.04	0.22[2]
Oklahoma	(3)	(3)	(3)	(3)
Oregon	0.32[2]	0.28[2]	-0.20[2]	-0.14[2]
Pennsylvania	-0.10[2]	-0.09	0.21[2]	0.27[2]
Rhode Island	0.02	-0.01	0.06	0.24
South Carolina	0.40[2]	0.26[2]	-0.18	0.02
South Dakota	(3)	(3)	(3)	(3)
Tennessee	0.24[2]	0.45[2]	-0.37[2]	-0.23[2]
Texas	-0.15[2]	0.12[2]	-0.18[2]	-0.15[2]
Utah	0.44[2]	0.58[2]	-0.49[2]	-0.22
Vermont	-0.07	-0.03	0.02	0.11
Virginia	0.09	-0.03	0.29[2]	0.50[2]
Washington	0.20[2]	0.34[2]	-0.29[2]	-0.12[2]
West Virginia	-0.11	0.25	-0.32[2]	-0.26
Wisconsin	0.06	0.19[2]	-0.21[2]	-0.11[2]
Wyoming	0.40[2]	0.40[2]	-0.20	-0.18

[1] No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district.

[2] Figure is statistically significant at the 0.05 level or better.

[3] Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts in the state were missing Census data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census, "School District Data Book."

Appendix B: Technical Notes

Data Sources

The data in this report are based on three sources:

1. 1998 Survey of Local Government Finances, commonly known as the F-33: This source provided the financial information for school districts. This data collection effort was jointly conducted by the NCES and the U.S. Bureau of the Census (Governments Division) for all public school districts in the country. These data permit the assessment of education revenue and expenditures within states, as well as across the nation. It is part of the Common Core of Data (CCD) collection of surveys and administrative-records data relating to public elementary and secondary education. These data were collected from state education agencies over the Spring and Summer of 2000.

2. 1990 Census School District Special Tabulation, commonly known as the Census Mapping (CM) file: This source provided information on district and community characteristics.

3. The 1993–94 Cost of Education Indices, downloaded from http://nces.ed.gov/edfin/prodsurv/data.asp. The file contains only the NCES AGENCY ID and CEI across geographic locations.

Taken together, these three data files were intended to include data on all public school districts. However, the CM file was missing a number of districts in certain states, and the CCD and F-33 data files contained missing information for some data fields. To account for this, some missing or deficient data was imputed, or "filled in," as described below in Data Modifications and Imputation Procedures. In states where a large proportion (50 percent or greater) of the districts were missing CM data, all analyses dependent upon these data were excluded from the report. (This occurred in Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota.)

Variables used in this analysis and variable descriptions are listed below by source.

Survey of Local Government Finances (F-33)

TOTALREV	Total General Revenues (sum of TFEDREV, TSTREV, TLOCREV)
TFEDREV	Total Revenue from Federal Sources
C14	Federal Revenues—Federal Chapter 1 Revenue
C15	Federal Revenues—Children with disabilities
TSTREV	Total Revenue from State Sources
C01	State Revenues—General formula assistance
C04	State Revenues—Staff improvement programs
C05	State Revenues—Special education programs
C06	State Revenues—Compensatory and basic skills programs
C07	State Revenues—Bilingual education programs
C08	State Revenues—Gifted and talented programs
C09	State Revenues—Vocational education programs
TLOCREV	Total Revenue from Local Sources
T06	Local Revenues—Property taxes
A07	Local Revenues—Tuition fees from pupils and parents
A08	Local Revenues—Transportation fees from pupils and parents
A09	Local Revenues—School lunch revenues
A11	Local Revenues—Textbook sales and rentals

A13	Local Revenues—Student activity receipts
A15	Local Revenues—Student fees, non-specified
A20	Local Revenues—Other sales and service revenues

Census School District Special Tabulation (Census Mapping)

Median Income- All Households	Median income—all households in district
Median Value Housing Units-All	Median value housing unit—all in district
% Non-White Children	Percent of non-white children in the district
% Children Below Poverty Level	Percent of children below poverty level in the district

These data was imported into SAS from Excel.

Cost of Education Indices

GCEI	Geographic Cost of Education Index. The GCEI uses data from three separate categories of school inputs: certified school personnel, non-certified school personnel, and non-personnel school items. The index reflects how much more or less it costs in different geographic locations to recruit and employ comparable school personnel as well as the varying costs of non-personnel items such as purchased services, supplies and materials, furnishings and equipment, travel, utilities, and facilities.

Construction of Key Revenue Categories

The revenue categories to which the reader is referred in the text and tables in this report were constructed from F-33 variables as shown below:

Total Revenue

Total revenue can be broken down as follows:

Local plus state plus federal revenues = total revenue

Local Revenues

T06, A07, A08, A09, A11, A13, A15, and A20 as described above, plus

C24	NCES local, Census state revenue
T09	General sales
T15	Public utility taxes
T40	Individual and corporate income taxes
T99	All other taxes
T02	Parent government contributions
D23	Revenue from cities and counties
D11	Revenue from other school systems
U22	Interest earnings
U97	Miscellaneous other local revenues

State Revenues

C01, C04, C05, C06, C07, C08, and C09 as described above, plus

C12	Transportation programs
C11	Capital outlay and debt service programs
C10	School lunch programs
C13	All other revenues from state sources
C38	State payments for LEA employee benefits
C39	Other state payments (books, buses, etc.)
C35	State revenue, non-specified

Federal Revenues

C14 and C15 as described above, plus

C25	Child Nutrition Act
C16	Eisenhower Math and Science
C17	Drug-free Schools
C18	Chapter 2 Block Grants
C19	Vocational Education
C20	All other federal aid through state
C36	Federal revenue, non-specified
B10	Impact Aid (PL 815 and 874)
B11	Bilingual Education
B12	Native American (Indian) Education
B13	All other direct federal aid

Selection of Observations

Primary Analysis Dataset

The F-33, Census Mapping, and Cost of Education files were merged to create the primary analysis dataset. After merging these files, observations were deleted from the dataset if they had any of the following characteristics:

- Designated as college-grade, vocational or special education, nonoperating, or education service agency (source: F-33 school level code)
- Had zero or missing total revenue and total expenditure (source: F-33 total revenue and total expenditure)
- Had the strings "VOC," "TECH," "SPEC ED," or "AGRIC" in the name of the district (source: F-33 LEA name)

Data Modifications and Imputation Procedures

Taken together, the F-33, Census Mapping, and Cost of Education Index files were intended to include data on all public school districts. However, some data fields in these files contained missing information for some districts, or districts were simply missing from the data file altogether. For example, GCEI data were missing for several districts, and in nine states over half the districts were missing in the Census mapping file.

Conducting analyses with missing pieces of information would pose several logistical problems. In particular, the analysis dataset would change for each variable or data file investigated. That is, only those district observations with non-missing values for a particular variable could be analyzed, and each variable would be represented by a different set of districts. This type of analysis would pose potential problems with the interpretation of data results, as systematic reasons for missing data might produce or mask revenue patterns. For example, new districts may universally be missing census mapping demographic data because of the timing of census data collection. If these districts were excluded from any given analysis for this reason, the results would obviously be affected by the omission. For these reasons, project staff decided to impute, or "fill-in," values for missing demographic and cost of education data. Data imputation procedures allow the researcher to run an analysis with a full dataset, with minimal compromising of the original data.

A "nearest neighbor" approach was used in the imputation process. The data were stratified by state so that any recipient always received a value from a donor in that same state. Then the data were sorted by three variables, and "good" (in this case "good" = non-missing) values were supplanted over missing values. A missing value was always replaced by the last good value before it in the sort order.

Simple analysis revealed that all districts that were missing any one of the four census mapping variables were also missing the other three. There were 2,097 districts missing all 4 census mapping variables. Further analysis revealed that all but two districts missing cost of education index data were also missing the census mapping variables. Thus, there were 175 districts missing all 5 pieces of information, 1,922 districts missing only the census mapping variables, and 2 districts missing only the cost of education index variable.

The districts were first sorted by state, a measure of size in descending order (in this case, v33: fall membership in October 1997), a type-of-district code in descending order (schlev: elementary, secondary, or unified district), and finally by a county code (first three digits of the FIPS code). The four census mapping variables were always imputed from the same donor. The cost of education index was occasionally imputed using a donor different from that used for the census mapping variables.

In nine different states, over half the districts were missing demographic census mapping data. These states were Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota. Missing data in these states were imputed for use in the national correlation analyses. However, such high imputation rates would have rendered suspicious data in the state-level demographic analyses. Consequently, these states were excluded from state-level analyses using census mapping data.

Revenue data from the F-33 file were not imputed.

Glossary

District type is defined by the level of instruction provided. The categories and distinctions used in this report are

- Elementary—district provides instruction only below 8th grade
- Secondary—district provides instruction between 7th and 12th grades
- Unified—district provides instruction for any other combination of grades

Elementary is a general level of instruction classified by state and local practice as elementary, composed of any span of grades not above grade 8. Preschool or kindergarten is included only if it is an integral part of an elementary school or a regularly established school system.

Enrollment is defined as the count of students on the current roll on or about October 1, 1989.

General formula revenues and **General assistance revenues** are state revenues from general noncategorical state assistance programs such as foundation, minimum or basic formula support, principal apportionment, equalization, flat or block grants, and state public school fund distributions. It also includes state revenue dedicated from major state taxes, such as income and sales taxes.

The **Geographic Cost of Education Index (GCEI)** reflects how much more or less it costs in different geographic locations to recruit and employ comparable school personnel, as well as the varying costs of non-personnel items such as purchased services, supplies and materials, furnishings and equipment, travel, utilities, and facilities. GCEI uses data from three separate categories of school inputs: certified school personnel, non-certified school personnel, and non-personnel school items. The index is established by weighting each component of expenditure by its share of current expenditure during the 1993–94 school year.

Geographic region refers to district location within a region of the country. The regional designators for this analysis are

- **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
- **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
- **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
- **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Instructional program revenues include funds received by the local education agencies from the state for special education, compensatory and basic skills attainment, bilingual education, gifted and talented education, and vocational education.

A **Local Education agency** is a government agency administratively responsible for providing public elementary and/or secondary instruction or education support services.

Median household income is defined as the median income of the householder and all other persons 15 year old and over in the household, whether related to the householder or not, in calendar year 1989.

Median value owner-occupied housing is defined as the median value of specified owner-occupied housing units in a state in 1990.

Percent minority students is defined as the percent of students in a state's public schools who are African American, Hispanic, Asian, American Indian, and Alaskan Native in 1990.

Revenues are defined as increases in the net current assets of a government fund type from other than expenditure refunds and residual equity transfers. These are reported as revenues from local, state, and federal sources.

Revenues from federal sources are direct grants-in-aid from the federal government; federal grants-in-aid through the state or an intermediate agency; and other revenue such as that received in lieu of taxes because the tax base was not subject to taxation.

Revenues from local sources are revenues from a local education agency, including local property and non-property tax revenues, local government, tuition, transportation, food services, student activities, donations, and property rentals.

Revenues from property tax are revenues raised from property taxes, only in those districts with the authority to set their own property tax rates.

Revenues from state sources are revenues from a state government source including those that can be used without restriction, those for categorical purposes, and revenues in lieu of taxation.

Revenues from student fees includes revenues from student transportation fees, school lunch sales, textbook sales and rental fees, fees for student activities, and other student fees.

A **school district** is a geographic area within a state where a public school system operates as a governmental entity with responsibility for operating public schools in that geographic area.

Percent children in poverty is defined as children 5 years of age and living in households with income at or below the poverty level in 1990.

Secondary is defined as the general level of instruction classified by state and local practice as secondary and composed of any span of grades beginning with the next grade following the elementary grades and ending with or below grade 12.

A **student** is an individual for whom instruction is provided in an elementary or secondary education program that is not an adult education program and is under the jurisdiction of a school, school system, or other education institution.

Title I revenues include Federal revenues awarded through Title I of the Elementary-Secondary Education Act (P.L. 89-10), including basic, concentration, and migratory education grants. Federal Title I funding is the largest single federal education program. These revenues provide money to schools systems to improve the teaching and learning of children in high-poverty schools. The purpose of this funding is to supplement existing state and local funds for educational services to provide for the additional needs of economically and educationally disadvantaged children.

A **vocational education district** is defined as a public elementary/secondary district that focuses primarily on vocational education, and provides education and training in one or more semiskilled or technical occupations.

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